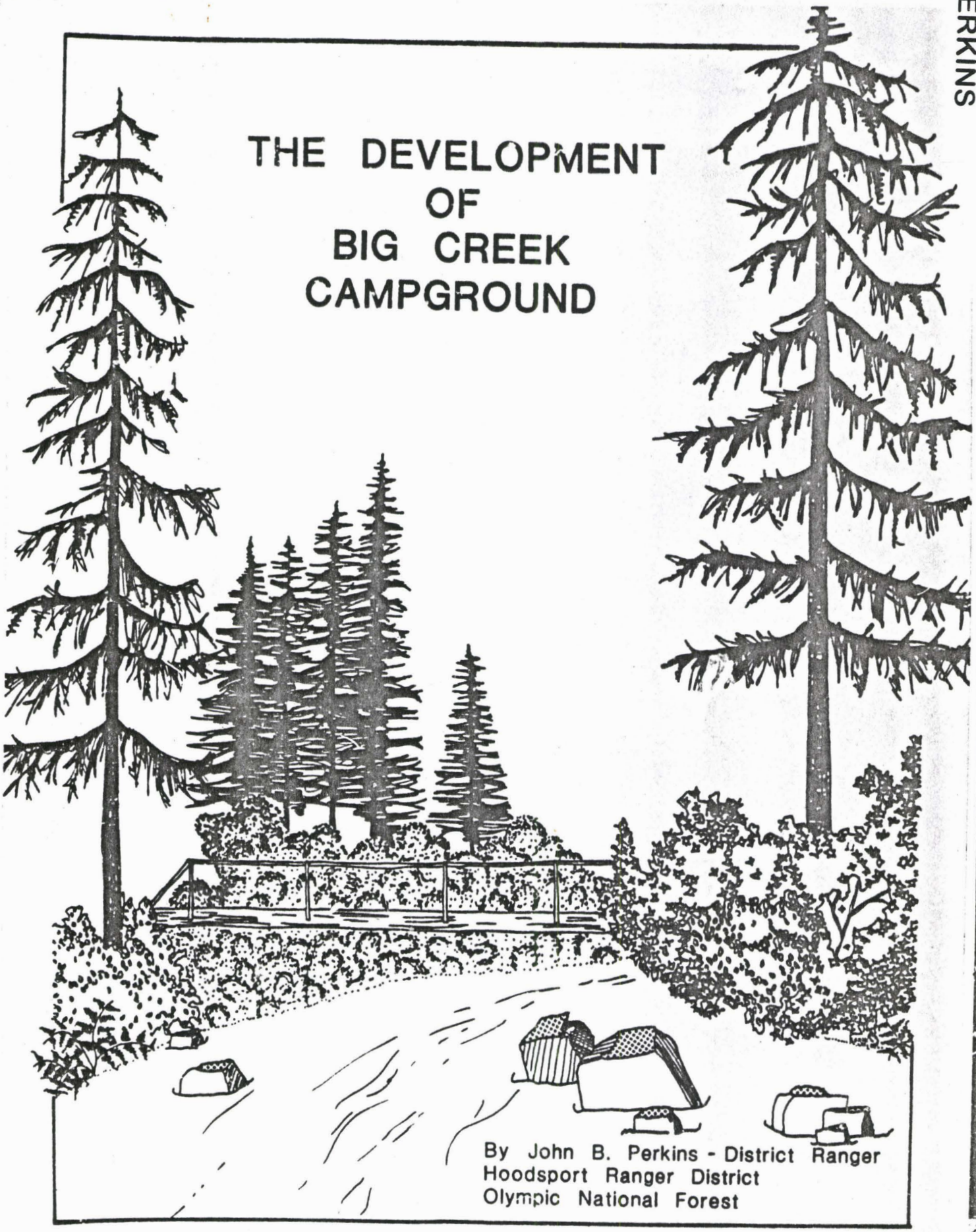
THE DEVELOPMENT OF BIG CREEK CAMPGROUND



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THE DEVELOPMENT OF BIG CREEK CAMPGROUND OLYMPIC NATIONAL FOREST

By

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"This paper was prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management program at Clemson University. It in no way reflects U.S. Forest Service policy nor are the opinions expressed those of anyone other than the author."

TABLE OF CONTENTS

		Page
	ABSTRACT.	ii
I	INTRODUCTION.	1
	MAP OF LAKE CUSHMAN AREA.	3
	MAP OF BIG CREEK CAMPGROUND	4
	LITURATURE REVIEW	5
II	METHODOLOGY	
	Informational Needs	7
	Data Collection Procedures.	8
	Data Collection - Interviews.	9
	Washington State Parks	10
	Washington Department of Natural Resources	13
	Olympic National Park.	15
	City of Tacoma	18
	Evaluation of Interview	21
	Analysis of Cost of Development	25
	Recreational Level of Big Creek Campground.	25
III	SUMMARY	26
	Recommendation.	27
	LITERATURE CITED.	28

Page

IV APPENDIX 29

Exhibit A Excerpts from Canal Front EIS

Exhibit B Excerpts from Staircase Developmental Plan E.A.

Exhibit C Excerpts from Washington State Comprehensive Outdoor Recreation Plan SCORP

Exhibit D Maps Showing Public Development Sites - Exhibit R of City of Tacoma Relicensing Application

Exhibit E Excerpts from F ly Settlement of Lake Cushman

Exhibit F Economic Notes - Pacific NW & the Nation July 1983

Exhibit G Developmental Scale - Forest Service Manual

Exhibit H Incremental Costs of Development

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TITLE The Development of Big Creek Campground.

ABSTRACT

This paper is an analysis to determine the development needs for Big Creek Campground, on the Hoodsport Ranger District.

The analysis will be done by review and coordination of the Five Governmental Agencies plans in the Lake Cushman Area of the Hoodsport Ranger District. The agencies' are: Olympic National Forest, Olympic National Park, Washington State Parks, Washington Department of Natural Resources, and City of Tacoma.

Developmental scale, experience levels provided, and facilities available will be reviewed. The aim is to provide the best facilities and the best recreational experience at Big Creek Campground at the least cost to the Forest Service.

INTRODUCTION

INTRODUCTION

The Olympic National Forest is now in an era of decreasing budgets and an increasing recreational use.

This is particularly noticeable on the eastern side of the Olympic National Forest, where recreational areas are within a "Tank trip" of the Puget Sound Basin. (A full gas tank will take you to the woods and return home.)

A review of the economic notes "The Pacific Northwest and the Nation" - July 1983, features Shelton and Mason County. While the bulk of use is from the Puget Sound Basin, an increasing amount of roadside camping, campground, and boating use is from Mason Counties' retired folks, a group that has increased 78.9 percent in the last 10 years.

Several public agencies provide similar recreational opportunities. To provide the visitor with a wide range of activities and not to duplicate the need for/or waste dollars become a very important item in a shrinking budgetary climate.

Big Creek Campground is a partially completed Forest Service campground. The southern portion of the Hoodsport Ranger District, in the vicinity of Lake Cushman Area, has five public agencies, federal, state and city government, providing recreational opportunities.

One of the major needs is to provide a developed site to accommodate "orgainzed groups", such as camping clubs, scout troops, church groups, etc. The Forest Service does not provide this, nor does any agency in the Lake Cushman Area.

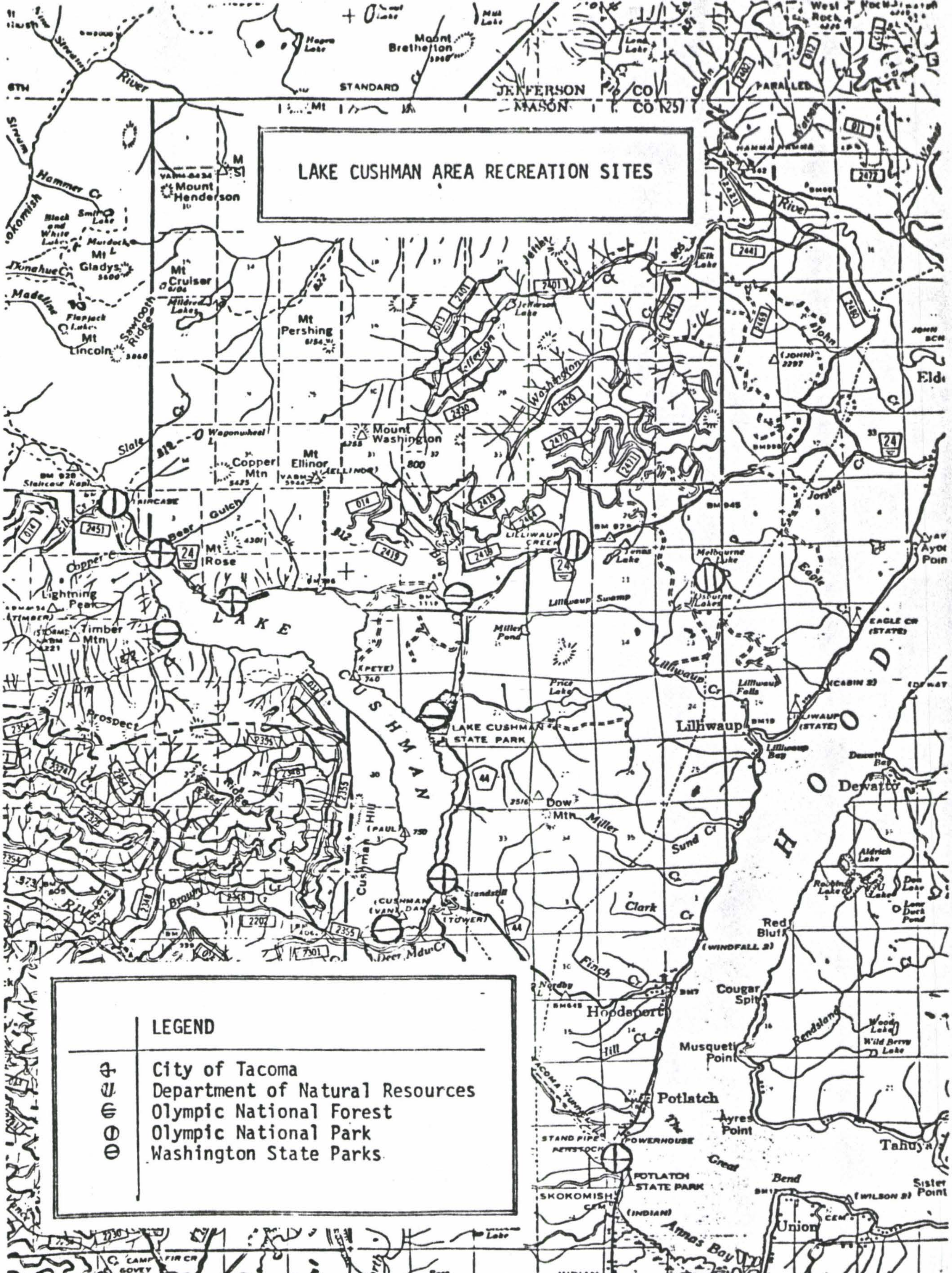
This paper attempts to:

1. Determine the ultimate development need for the Hoodsport Ranger District's partially constructed Big Creek Campground.

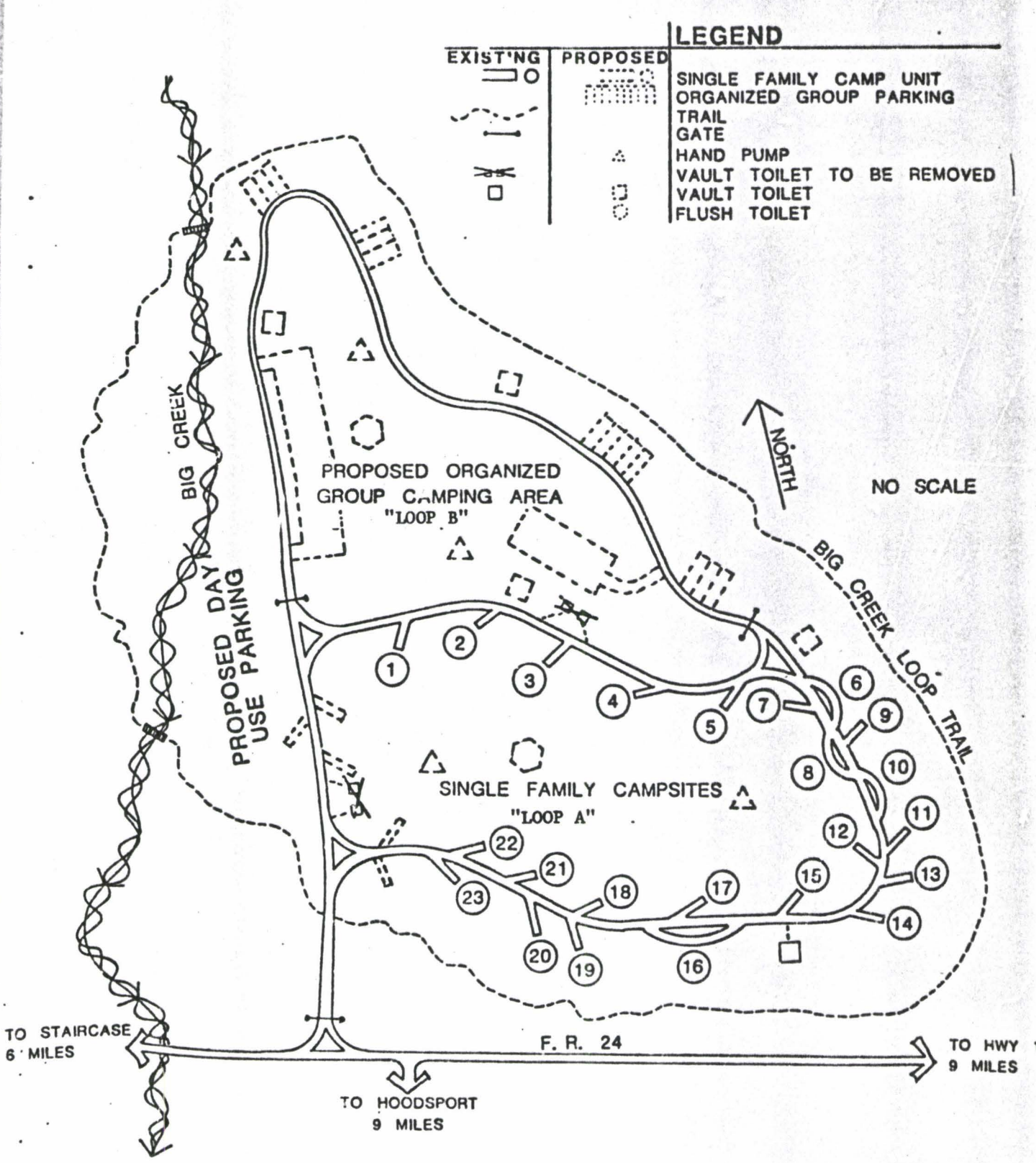
2. This study is limited to recreational facilities in the Lake Cushman Area.

3. Review the management plans, expansion opportunities, facilities available, and experience levels provided by the following public public entities; Olympic National Park, Olympic National Forest, Washington State Parks, Department of Natural Resources and City of Tacoma. This paper reviews the plans, opportunities, etc., from these agencies at the field level.

It is not the intent of this paper to analyze the abilities of these and similar agencies to determine at a National Forest level if close cooperation would save dollars for each agency and the taxpayer in general, but if it could work at a local level, wouldn't it be worth pursuing?


LAKE CUSHMAN AREA RECREATION SITES
LEGEND
City of Tacoma
Department of Natural Resources
Olympic National Forest
Olympic National Park
Washington State Parks
Mount Bretherton
STANDARD
JEFFERSON
MASON
Mount Henderson
Mt Gladys
Mt Cruiser
Mt Pershing
Mt Lincoln
Sawtooth Ridge
Hammer Cr
Mount Washington
Mt Ellinor
Copper Mtn
Mt Rose
Bear Gulch
Lightning Peak
Timber Mtn
Slate
Prospect
Brown
Washington
Jefferson
LAKE CUSHMAN
LAKE CUSHMAN STATE PARK
Lilliwaup Swamp
Miller Pond
Price Lake
Dow Mtn
Miller
Sund Cr
Clark Cr
Finch Cr
Lilliwaup
Lilliwaup Falls
Melbourne Lake
Jorsted
Eagle
HOOD
Dewatto
Red Bluff
Cougar Spit
Hoodsport
Musqueti Point
Potlatch
POWERHOUSE
POTLATCH STATE PARK
SKOKOMISH
The Great Bend
Ayres Point
Tahuya
Sister Point
Union
Annas Bay
Aldrich Lake
Standstill
CUSHMAN DAM

BIG CREEK CAMPGROUND
HOODSPORT RANGER DISTRICT
OLYMPIC NATIONAL FOREST
T 23 N, R 4 W, Sec 8 & 9



LITERATURE REVIEW

A review of the literature at the District and Forest level revealed little information useful in this study, including WESTFORNET. The Washington State Historical Society's 1974 booklet on the "Early Settlement of Lake Cushman" provided background information of the area from 1890's through 1926.

In 1926 the Lake Cushman Project was the second largest reservoir in Western United States, only the lake behind Hoover Dam being larger. The City of Tacoma's, 1977 application to the Federal Energy Regulatory Commission (FERC)(then Federal Power Commission) for Project # 460 - Washington, takes development of the reservoir to its present size. The application is in 4 volumes - over 1000 pages, Volume 3 includes the Proposed Plan for Public Use and Recreation Purpose on the reservoir and adjacent lands. Exhibit R.

Lake Cushman, formed by the 275 foot high dam, is 9.6 miles long covering 4000 acres and has 23 miles of shoreline. (Volume 1 of Application)

The Application of the Federal Power Commission for relicensing of Project 460 - Washington of 1977 is the document used by the City of Tacoma to discuss acreage open to the public and planned development for sites, experience levels, facilities available and their perception of all other agency use in the area.

Washington State Parks uses this document for maps, useage etc, (basically exhibit R).

The discussion of facilities available, maintenance, etc., is correct for Washington State Parks according to the local area manager.

The basic Forest Service document for land management on the Hoodsport Ranger District is the Canal Front Planning Unit Final Environmental Impact Statement (EIS) approved in 1979. In the preferred alternative, Alternative F, Big Creek Campground will be developed. Summary in the front of the EIS and section VIII page 110-123, describes management alternatives and direction. Page 123 gives specific direction to the Big Creek Campground, "The Big Creek Campground will be retained and made available for organization or group camping use." This document and it's supporting documents clearly shows the need for group camping facilities. No such facilities are available anywhere else on the Olympic National Forest. As is further stated in the Canal Front E.I.S. "developed site use on the Canal Front Unit will remain with emphasis on destination type facilities oriented towards enjoyment of the National Forest."

Olympic National Park direction for the future, facilities, levels, are contained in the Staircase Development Plan 1983 now out for public comment in the form of an Environmental Assessment. E.A. excerpts are included in the appendix.

The Olympic National Park Master Plan 1979 is the parent document this comes from. The Visitor Information Service at Hoodsport, mentioned in the Master Plan, is existing now in the Hoodsport Ranger Station.

The Forest Service Roles in Outdoor Recreation - Program Aid 1205 states the Forest Service policy is "Coordinate Forest Service activities with other Federal, State, and local and private recreational entities to avoid duplication of efforts".

The Washington Department of Natural Resources (DNR) based their future plans in part on Washington Statewide Comprehensive Outdoor Recreation Plan - SCORP and partially on their recreation specialist projections. The DNR wants to project an image of more than a timber harvester. No plans for fee campgrounds are presently included in their "futuring".

METHODOLOGY

METHODOLOGY

INFORMATIONAL NEEDS

Background data were reviewed, starting with a review at the early history of the Lake Cushman area. It became apparent that the City of Tacoma should also be included, as the 1000 page application for relicensing contained in Exhibit R was used as the basis for further planning by Washington State Parks, City of Tacoma, and at least partially by the Department of Natural Resources.

It was decided to interview local managers of the other four agencies that provide public recreation in the Lake Cushman area. A format with the same questions was set up, i.e.;

1. What are your agency's recreation plans in the Lake Cushman area?

2. What does your agency feel are the real recreational needs in the Cushman area?

3. What do you (and your agency) see as the needs in the Forest Service Big Creek Campground?

4. Do you think a high level meeting to review agency needs in order to avoid duplication and save taxpayer dollars could succeed?

The local Managers were asked what the plans of their agencies were based on.

Forest Service plans at Big Creek Campground were explained. Status of the campground, a little history, and an opening to get the folks talking about what they would recommend at Big Creek Campground was used in each interview.

Items covered were management planning, expansion opportunites, facilities available and planned, and experience levels.

DATA COLLECTION - PROCEDURE

I interviewed the managers that I deal with in my normal working environment. I told them why I was collecting the data and what I proposed to do with it. I further told them they would have an opportunity to review this document before it was submitted as my project - but in final form - in case I had misunderstood what they told me. I was extremely pleased with the reception I received and the open and candid remarks of the managers. I think higher levels could build on this type of working together to all our gains.

DATA COLLECTION - INTERVIEWS

In order by time:

Date	Agency	Name	Title
November 18, 1983	Washington State Parks	Al Giersch	Area Manager
November 21, 1983	Dept. of Natural Resources	Herb Cargill	Hoodsport Local Manager
November 23, 1983	Olympic National Park	George Bowen	Staircase Unit Manager
November 23, 1983	City of Tacoma	Bill Robbins	Cushman Project Manager

INTERVIEW - WASHINGTON STATE PARKS

November 18, 1983

Al Giersch - Area Manager

Manages Dosewallips, Lake Cushman, and Potlatch State Parks

What are plans in Lake Cushman Area?

Al referred to City of Tacoma's application to the Federal Power Commission for relicensing of project 460 Washington Exhibit R. The various maps were reviewed - i.e. Lake Cushman State Park, Deer Meadow Boat Camp, and Dry Creek Boat Camp.

In addition, Bear Gulch Access & Picnic Area, and Roadside Public Access & Picnic Area, were discussed.
State Parks plans, by sites in the Lake Cushman area are as follows:

DEER MEADOW - 11.4 ACRES

Land is to steep - State plans to do nothing (within next 10 years).

DRY CREEK - 25 ACRES

Plan is for boater-hiker campground using Forest Service Trail #872 and boat access. U.S. Navy Construction Battalion - C.B.'s are installing bridge over Dry Creek, November 19-20, and later as needed. Presently campers are using the area without sanitation facilities. Plan is to have area developed within 10 years on a rather primitive level - similar to Recreation Opportunity Spectrum class (ROS) of primitive and development scale of 1, no road - (boat and trail only).

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Do you foresee as worthwhile, a high level meeting of the agencies on the Peninsula to do this kind of a review of all agencies facilities and plans to develop a overall plan and thereby avoid duplicaton and waste of taxpayers money.

Yes.

Maps of the Washington State Parks areas are taken from Exhibit R and are included in the appendix as recommended by Al Gierach as the most up to date.

INTERVIEW WITH WASHINGTON STATE DEPT OF NATURAL RESOURCES

November 21, 1983

Herbert (Herb) Cargill - Hoodsport Local Manager

Jerry Kvale - Technician 2

What are your agency's plans in the Lake Cushman Area?

1. LILLIWAUP CREEK - 13 units, 4 pit toilets and one well.

There are no plans to expand or upgrade sites - will stay fairly primitive - Development Scale 2.

2. MELBOURNE LAKE - 6 units, 2 pit toilets and no well. Boat launch is on Simpson Timber Company land - Development Scale 2.

Plan is to upgrade and increase in size plus improve boat launch. Timing will depend on existing land exchange with Simpson Timber Company and DNR, with DNR receiving the boat launch.

DNR does not compete with Washington State Park for clientele (their words), as the DNR clientele is at the primitive, no charge end of the R.O.S. and the State Park is at a higher developmental level.

Planning and forecasting is done by DNR planners with their background document being Washington Statewide Outdoor Recreation Plan.

In addition, when the Simpson Exchange is completed, besides expanding Melbourne Lake facilities, the DNR plans to put in a campground on Prices Lake consisting of camping units, a pier and a small boat launch, similar to Lilliwaup Creek at Development Scale 2.

The DNR does not plan to charge for their recreational facilities as it is good publicity to provide free camping - DNR does something besides cut trees. The dollars are provided, in lieu of logging, to the state treasury for not logging the area.

The needs the DNR sees in the Lake Cushman Area are group camping, and ORV trails.

The DNR does not plan on providing group camping now or in the future.

ORV Trails may be constructed when the Simpson Exchange is completed. This would be within the next 10 years.

I explained our plan at Big Creek and asked for their suggestions.

They felt the group camping with shelters and cooking facilities, were probably the biggest perceived need in their minds.

I discussed the possibility of an agency meeting with the Forest Supervisor, Park Superintendent, and equal levels from the State agencies. When asked if they felt it would be beneficial, and a possible savings of all agencies' dollars and providing facilities without duplication, they felt it would be an asset to sit down and do joint planning.

INTERVIEW - OLYMPIC NATIONAL PARK

November 23, 1983

George Bowen - Staircase Unit Manager

STAIRCASE - Charge of $5.00 per unit

50 Unit campground

5 picnic units

2 Flush toilets, both sex, 1 of which is open year round

1 Amphitheater holds 85 people

4 day trails, day hikes of up to 3 miles

What are Olympic National Parks plans in Lake Cushman Area?

Olympic National Park has presently submitted to the public a copy of an Environmental Assessment for the Staircase Development Plans which shows several alternatives including the Olympic Parks preferred alternative. Excerpts from this environmental assessment are included in the appendix.

The bases for the perceived needs is through increased use figures, Olympic National Park planners, and the Washington State Comprehensive Outdoor Recreation Plan

The major thrust in the Staircase area is to increase parking, expand picnic and day use areas and rehabilitation of the Staircase campground to include campsite and restroom access for the handicapped.

A long range change is the shift from backcountry use to day use in the Staircase area. This is backed up by recorded use figures for the last 12 years.

Another change in Olympic National Park's management is that the Park is going back into using and owning pack and saddle stock for park backcountry management. The Park is getting its own pack stock and will probably want to get with the Forest Service to do some construction or reconstruction at some of our joint trailheads.

A cooperative venture for both Forest Service and Park Service would be a joint emergency helicopter pad. The Park Service is looking at several areas including the new Hoodsport County Park.

This new county park is called Foothills Park and is presently under construction by volunteer workers from the Hoodsport area. This park will have a baseball field, jogging trail, tennis courts, play area, picnic area, parking area, and will cover 20+ acres. The county will be in on the decision of allowing an emergency helicopter landing pad.

What does the Olympic National Park feel are the real needs in the Lake Cushman Area?

1. Off Road Vehicle, (ORV) summer type trails are nearly non-existent.

2. A new and increasing use in the area is cross country skiing which could utilize the same trails as #1 above.

3. Loop Trails - The Olympic National Park and the Hoodsport Ranger District need to coordinate in the management of several trails that are partly on each agency.

4. Boat launch at Bear Gulch.

5. Road Picnic site along Lake Cushman has no management - allows camping, no sanitation and limited maintenance.

6. Keep campground open through hunting season, for hunters on Forest lands.

7. Site reservation on a joint agency basis may be a need. Site holding (wife and kids coming up early) is becoming common practice. How a reservation system across agency lines would work at this time is not known.

What do you see as the need in Big Creek Campground?

Completion of the back loop as planned with several separate sites for different size groups. Special sites or general adaptation for handicapped use.

Some type of reservation system so groups can plan ahead, would need to be tied into Washington State Parks and Olympic National Park through Hoodsport joint office and Staircase.

Some ORV tie in at back of campground and Big Creek area - could be both ORV and cross country skiing.

INTERVIEW WITH CITY OF TACOMA

January 23, 1983

L. W. (Bill) Robbins

Manager Cushman Project

Light Division - Department of Public Utilities

City of Tacoma

What are your agency's plans in the Lake Cushman Area?

In the Application for the Relicense of Project 460 - Washington to the Federal Power Commission (now FERC), 921 acres are made available by the city for public recreation. Two areas are still managed by city of Tacoma - Hydro Park and Lake Cushman Resort. Two others are managed by their leasee, Lake Cushman Development Company -

These are: 1. Bear Gulch, 2 acres.

2. Roadside picnic area, 298 acres.

Bill Robbins referred to Exhibit R of City of Tacoma's relicensing of project 460 - Washington sent to Federal Power Commission in 1977 - Agency is now Federal Energy Regulatory Commission. This covers all public recreation sites land discusses planned expansion/ development, maintenance and other agency use and development if appropriate.

HYDRO PARK - 4.7 acres.

This is a salt water boat launch, parking and picnic area on Hood Canal. Site has two 12 foot wide boat launches, 12 picnic sites - a 60 car parking area and a flush toilet. This is the only public boat launch on the west side of Hood Canal for 20+ miles. There are no plans for expansion.

LAKE CUSHMAN RESORT - 10.0 acres

The buildings are leased out but what the leasee must provide the public is spelled out, i.e.; Boat rental, overnight facilities, and lake access for the public (but not a large boat launch).

The public's uses are not planned for expansion. Planning was done, in part, from Washington State Comprehensive Outdoor Recreation Plan and partly from local government use figures.

BEAR GULCH - 2 acres

10 sites and 1 pit toilet

Unimproved boat launch

ROADSIDE PUBLIC ACCESS AND PICNIC AREA - 298 acres

6 sites - 17 individual picnic sites

Foot access all along lake shore - no sanitation or water.

No future improvements planned.

City of Tacoma does not perceive any specific unmet needs in the Lake Cushman area that State and Federal agencies are not providing.

Bill Robbins did not feel there was any need at Big Creek Campground that our plan would not meet.

I do not see a need to include City of Tacoma in any future higher level discussions on the Olympic Peninsula. If a discussion of this sort were to include other Washington National Forests, then City of Tacoma should be included as they have several other reservoirs that are on or near Gifford Pinchot NF and Mt. Baker - Snoqualmie NF.

EVALUATION OF INTERVIEWS

Total Public Facilities - Present and Proposed

Tabular form seems best for direct comparison

Table A

LAKE CUSHMAN AREA - TABLE A

Total Public Facilities - Present and Proposed

Agency	Campsites Individual	Campsites Group	Picnic Sites Ind.	Picnic Group	Boat Launch	Swimming	Proposed	Experience Level
Washington State Pks	80	0	0	1	1	2 areas	10 x 20 shelter - No cooking facilities	1 & 4
Washington DNR	19	0	0	0	1	0	Increase units at Melbourne Lake - Improve boat launch - Campground at Prices Lake	2
Olympic National Park	50	0	5	0	0	0	Expand picnic sites (family size)	4
City of Tacoma	8	0	29	0	* 1	1	**	3 & 5*
US Forest Service	23	0	0	0	0	0	1 Large group shelter 2 Group fire circles 4 Group sites - various sizes	3
TOTAL	180	0	34	1	3	3		

* 1 Boat launch at Hydro Park on Hood Canal - Saltwater - Open year around to public - also 60 car parking lot and 12 picnic sites.

** Boat Launch at Lower Lake Cushman turned over to State Dept. of Fish & Game - Nothing planned for future.

B. Needs not covered by any agency - or not covered sufficiently.

Washington State Parks - Al Giersch

1. No winter sports - ORV trails
2. No group sites with covered cooking shelters

Washington State Department of Natural Resources - Herb Cargill

1. Group Camping
2. ORV Trails

Olympic National Park - George Bowen

1. Combine ORV Trails and cross country ski trails.
2. Loop Trails - Forest Service - Park Service combined.
3. Year around campsite use.
4. Boat launch at Bear Gulch - Upper end of Lake Cushman - City of Tacoma land.
5. Joint agency reservation system

City of Tacoma - Bill Robbins

No needs that aren't presently being met by State - Federal agencies.

C. Other agencies' perceived needs at Big Creek.

Washington State Parks - Al Giersch

Complete back loop with several group sites and several shelters of different size.

Washington State Dept. of Natural Resources - Herb Cargill

1. Group campsites

2. Tie ORV trails to back of campground.

Olympic National Park - George Bowen

1. Completion of back loop with several separate group sites for different sized groups, including sites for handicapped.

2. Some type of reservation system so groups can plan ahead.

3. ORV tie in at back of campground.

City of Tacoma - Bill Robbins

1. Construct back loop and provide group sites with 1 or more cooking shelters.

ANALYSIS COST OF DEVELOPMENT

This campground has been studied since 1973 when Tony Skufca, Director of Recreation for Region 6, was invited to the Olympic National Forest. As the need persisted, the economics of development were also explored. While the original ultimate goal was a level 4 campground, economics have now lead us to pursue the level 3. Costs were developed by increments using Forest averages. Increments 1 through 4 were developed with each increment showing costs to complete that increment only. These are shown as exhibit B in the Appendix. The discussion of increments is as follows:

INCREMENT 1: Three hand pump wells will be installed for loop A. With the addition of water to the existing developments the campground will operate as an experience/development level 3, non-fee site. The approximate cost of this work is $32,100. (See Appendix A)

INCREMENT 2: After potable water, the next priority is to replace or install the facilities necessary to bring loop A up to an experience/development level 3, minimum fee site. This work includes: replacing the 4 old single-vault toilets, installing bulletin boards and other appropriate signs, installing natural and manufactured barriers. Of course all new construction will be designed with the physically disabled in mind. Approximate cost in addition to the previous work will be $39,250. (See Appendix B)

INCREMENT 3: The next logical work to be done is to construct the last 5 single family spurs and units in loop A and then construct or install all the facilities planned for loop B. This work includes: parking spurs and lots, tables, firerings, group fire circles, 2 additional double-vault toilets, 2 more hand pump wells, bulletin boards, and other signing. The experience/development levels will be 3+ and a fee will be charged for both loops A and B. Approximate cost in addition to the previous work will be $112,300. (See Appendix C)

INCREMENT 4: Once the entire campground has been constructed, the next set of priorities will be to make additional site modifications to allow the physically disabled to have more recreation opportunities. These improvements include: hardening some of the camp units and trails to the toilets for easier access. Other site improvements include: installing special facilities for the host site, such as the septic tank/drainfield hookup, waste water sumps, and tent pads would be appropriate. The trail will be extended and a small parking lot for day hikers will be constructed. The campground will be an experience/development level 3+, fee site. Approximate cost of this work, in addition to the previous work will be 33,100. (See Appendix E)

RECREATION LEVEL OF BIG CREEK CAMPGROUND

As shown in Table A, there are three campgrounds at the level 1 and 2 end of the spectrum - Dry Creek at level 1, Melbourne Lake and Lilliwaup Creek are level 2, and two at the 4 and 5 end of the spectrum, Cushman State Park and Staircase Campground, Olympic National Park.

The mid range is where the need appears greatest.

Exhibit G, Roaded Natural - Recreation Opportunity Spectrum Class & Development Scale shows Big Creek Campground to fit into level 3. This level 3 campground will compete well when it moves into a charge status with a charge of $3.00 or $4.00. This compares favorably with other Forest Service campgrounds at level 3 on other Ranger Districts of this Forest. Staircase at level 4 is $5.00, and Cushman State Park, level 5 charges $5.50 for tent and $8.00 for full hookup.

Use in this part of the forest has never slowed down, even with the gas crunch and heavy inflation. Other sections of the Olympic Penninsula have had reduced use, but use here has maintained a steady increase of 10% per year. The one exception was 1980 after Mt. St. Helen's blew it's top - use went up drastically that one year to over 23%.

SUMMARY

SUMMARY

The purpose of the project was to determine the development need for the partially completed Forest Service Campground known as Big Creek Campground.

The road system, as shown on map page 4, is completed. The front loop with 23 family units is completed. The loop hiking trail is completed. The back loop has had nothing done.

All the people from the Federal, State and City government agencies interviewed have been in the area for several years and are knowledgeable about what Big Creek area looks like. Agency personnel were interviewed to determine what they felt was needed. Developmental levels were discussed. One agency, the DNR, was planning on a primitive level on all their existing as well as the planned development at Price Lake. All agencies spoke about their future plans for campgrounds, if any.

All agencies mentioned that they do not provide for group facilities nor can they handle group camping. No overnight facilities are planned at any presently developed site of any other governmental agency. All agencies felt group facilities were a definite need in the Lake Cushman area. These facilities at Big Creek would insure someplace for destination group camping users. All other agencies felt the Forest Service Big Creek location was the best available site for this use.

One additional question was asked to everyone. Do you think all agencies on the Olympic Peninsula should get together to review, basically what I did here in a small area, to see if we could better provide for the taxpayers and at the same time, save agencies money and not duplicate facilities. All responded affirmatively.

RECOMMENDATIONS

Based on the interviews with the other agencies, review of this project with Forest Recreation staff and Assistant Recreation staff, and my District staff, I recommend the following:

A. Back loop be completed as proposed.

B. Back loop to be constructed for various sizes of group camping.

C. At least 1 (and preferably 2) community kitchen and covered shelter be constructed.

D. Big Creek Management Plan be completed showing the above.

Addendum I

Since this project started, Jobs Bill funds became available and the well and sanitation facilities on the back loop will be built this year. Other work will proceed as funds become available or volunteer groups can be found.

Addendum II

Since this project started, the Big Creek Management Plan has been completed and was sent to the Forest Supervisor's Office for signature and approved February 3, 1984.

This project was the addendum of the Management Plan.

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APPENDIX

APPENDIX

Exhibit A	Excerpts from Canal Front E.I.S.
Exhibit B	Excerpts from Staircase Development Plan E.A.
Exhibit C	Excerpts from Washington State Outdoor Recreation Plan (SCORP)
Exhibit D	Maps showing public development sites in Lake Cushman Area
Exhibit E	Excerpts from "Early Settlement of Lake Cushman"
Exhibit F	Economic Notes of the Pacific Northwest. July 1983.
Exhibit G	Excerpt from Forest Service Manual - R.O.S. Scale
Exhibit H	Incremental Costs of Development.

EXHIBIT A

Summary

I The Olympic National Forest proposes to implement a comprehensive land management plan for the Canal Front Planning Unit. The proposal affects 238,782 acres of land administered by the Forest Service on the Hoodsport and Quilcene Ranger Districts located in Clallam, Jefferson, and Mason Counties, State of Washington. There are no other Federal actions being considered in this statement.

This plan includes consideration of the guidelines set forth in the Interim Direction in FSM 1920 issued to supplement the National Forest Management Act (P.L. 94-588) and is determined to be consistent with those guidelines.

Major issues and concerns raised by respondents to the draft environmental statement were: allocation of roadless areas to nonwilderness uses, visual quality, and reductions in programmed harvest levels. Because of these concerns, approximately 1/3 of the Planning Unit (75,536 acres) has been allocated to Further Planning to determine its suitability as wilderness. Another 16,122 acres has been allocated to other uses where timber harvesting has been prohibited or restricted. The entire land area will be managed using visual resource objectives as a consideration. These objectives will not be compromised on the east slopes of Green Mountain. Although indications are that programmed yields from the Unit may be lower, a total of 109,842 acres are available for regulated commercial harvest.

II Alternatives considered in developing the preferred alternative are:

1. Continue present management - no action.

2. Provide for Further Planning of all the undeveloped, roadless areas - Alternative A.

3. Provide for Further Planning of appropriate parts of the roadless areas and emphasize preservation of natural ecosystems - Alternative B.

4. Provide for a mix of resource uses - Alternative C.

5. Emphasize commodity production constrained by environmental quality criteria - Alternative D.

6. Provide for maximum commodity output by trading off visual quality objectives - Alternative E.

7. Further Planning for portions of roadless areas, designates areas requiring special management and provides for a moderate level of commodity outputs - Alternative F.

Alternative F (preferred) is a combination of Alternatives A through E. Three areas have been identified for further planning and seven areas require special management direction. Three areas requiring special management direction are identified to retain dispersed, roadless recreation opportunities; three are designed to maintain soil stability and water quality; and one area is proposed to preserve botanical values. The existing character of the Duckabush River Valley will be managed to retain the opportunity for study as a Wild and Scenic River. Wildlife habitat within these allocations will remain unaltered.

All existing developed recreation sites and their expansion potential are retained in this proposal. In addition, the preferred alternative will allocate three additional new sites to campground development and one site is proposed to be reopened. Locations for an additional 45.5 miles of trail; the opportunity to expand the existing transportation system; and positive direction for management of the soil, water, and visual resource are a part of this proposal.

Management and harvest of the timber resource is provided for on the productive commercial forest land of the Unit when not otherwise allocated to any of the specific uses identified above and in the body of the statement. Timber harvest, and all other management activities will be constrained by measures necessary to protect the soil, water, and visual resources. The wildlife habitat in the more intensively managed portion of the Unit will be modified as a part of the timber management program.

III The primary environmental effect of this proposed allocation of land will be the development and use of some areas of the Unit that are currently unroaded and undeveloped. Where development is proposed for these areas, the current, natural condition of the land will be affected by timber harvest and road construction. The allocation will provide for more intensive management and protection of these previously unmanaged areas. Where no development is proposed for the roadless areas, the land and resources will basically be preserved in a near natural condition.

Measures to protect the soil, water, and visual resources have been identified. This action will provide for use but will maintain productivity of the land, maintain and improve the fisheries resource, maintain water quality, and lessen the visual impact of management activities. The protective measures may result in increased operating costs and reduced amounts of timber available for harvest.

The allocation of parts of the land base to developed recreation sites will provide opportunities to meet future recreation demand. Other types of recreation use, including trail opportunities, have been identified and provisions made in the proposal for their continued use.

The portion of the Unit identified for a full range of multiple resource uses will experience vegetative changes as the timber is harvested. Some species of wildlife will benefit from these silvicultural treatments while other species not adaptable to timber harvesting activity or the altered environment will be adversely affected.

IV 1,206 comments on the draft environmental statement were received. The following agencies, organizations, companies, and individuals submitted letters containing substantive comments which are printed in Appendix C.

Federal Agencies

Department of Agriculture, Office of Equal Opportunity
Department of Agriculture, Soil Conservation Service
Department of the Army, Corps of Engineers
Department of Energy, Bonneville Power Administration
Department of Housing and Urban Development, Office of Community Planning and Development
Department of the Interior, Office of the Secretary
U.S. Environmental Protection Agency

Recreation

Forest Service policy is directed toward providing those types of recreation opportunity not available on other ownerships with emphasis on dispersed recreational activities. However, developed site use on the Canal Front Unit will remain with emphasis on destination type facilities oriented towards enjoyment of the National Forest.

The management direction proposed within this land management plan is aimed toward the reservation of specific sites for eventual campground development so as to preclude activities that might eliminate their future use. Other areas not specifically identified could, if future need increases, be utilized for campground development but have not now been removed from the productive timber land base. All existing developed sites and their expansion potential will continue to be allocated to this specific use. In addition, Rainbow Campground will be converted and reopened as a picnic ground. The development at Big Creek Campground will be retained and made available for organization or group camping use. The opportunity to expand Elkhorn Campground on the south side of the Dosewallips River will be retained as will the site near Jefferson Lake. This would include the area around the lake and between the road and the lake. All other sites previously withdrawn for recreation use but not identified as an area of land to be allocated to developed site use will not longer be reserved for development. The sites will be made available for other resource uses.

Dispersed recreation opportunities will be available in both roaded and unroaded areas through such activities as hiking, horseback riding, driving for pleasure, fishing, hunting, camping outside developed sites, etc. Dispersed use in unroaded areas will be managed to maintain natural settings. Facilities available will be primarily those brought in by the recreation user. Dispersed use in the roaded areas will provide less challenge, since users will be able to utilize self-contained campers and other facilities transportable by vehicles. Management emphasis will be placed on the elimination of litter and reduction of sanitation problems to reduce the expenditure of Federal funds for cleanup of dispersed areas. The opportunity for using specific areas for dispersed use may be restricted at times due to planned management activities.

EXHIBIT B

I. PURPOSE AND NEED

Visitor use patterns at the Staircase area, Olympic National Park, have changed dramatically since 1975. A large increase in day use visitors has resulted in traffic congestion, lack of parking, and heavy use of day hiking trails. The flow of motor vehicles becomes great enough on three-day holiday weekends that vehicles are stopped short of the boundary and prohibited from entering until parking is available at the road end.

Concurrently, Staircase Campground has received much more use and resultant impact than original design itended. Campsites are heavily trammeled, social trails are increasing annually, privacy screens are non-existant, and vehicle parking pads increase in size with each camping season. Since 1975 personnel assigned to the Staircase area have increased in number to provide services for the increased visitation, but without corresponding quarters and facilities. Present facilities have been in use since 1924. The last new quarters were constructed in 1955.

The National Park Service is proposing to improve access to Staircase, improve the overcrowded parking conditions, provide better day-use facilities, rehabilitate the Staircase campground, and determine the best use of existing buildings and the need for additional structures. The purpose of this environmental assessment is to analyze the environmental consequences of such action. No major development is planned for the west side of the river. If future development should be proposed for the west side of the river, it would be analyzed in another assessment prior to construction.

II. ALTERNATIVES

A. Preferred Alternative

Description

--The 1.2 miles of Staircase road would be repaved, and selected drain culverts replaced.

--Staircase Campground would be rehabilitated: sites will be delineated with landscaping, barrier rocks, and vegetation screens. Riverbank would be riprapped at specific sites.

--An interpretive shelter and bench seating would be constructed in existing parking lot adjacent to the ranger station.

--Housing for ten employees would be located north of the existing amphitheater. Existing housing on west bank of the river would be removed.

--Parking for amphitheater use and employees would be located east of the amphitheater.

--Parking for 165 vehicles would be provided by converting and expanding the existing parking area to the east. Future parking expansion would be possible on the west side of the river.

--The campground entrance would be relocated to the east, occupying existing campground sites #33 and #34.

--Future campground expansion would be possible on west side of river if demand should so warrant.

--The maintenance area would be shifted to the south of the existing area and a 30' by 45' shop building would be constructed.

--The existing ranger station driveway would be eliminated and parking for one vehicle would be provided east of the ranger station.

--Visitor contact facilities would be located in the existing ranger station and the existing shop would be converted into office and storage.

--The size of the existing corral would be reduced.

--Picnic area would be expanded into clearing on west side of river (existing housing area), with future day use development as necessary.

Mitigating Measures

The following mitigating measures are part of this proposal:

1. The road and campground construction would not be accomplished during the peak visitor season so that public travel would be affected as little as possible.

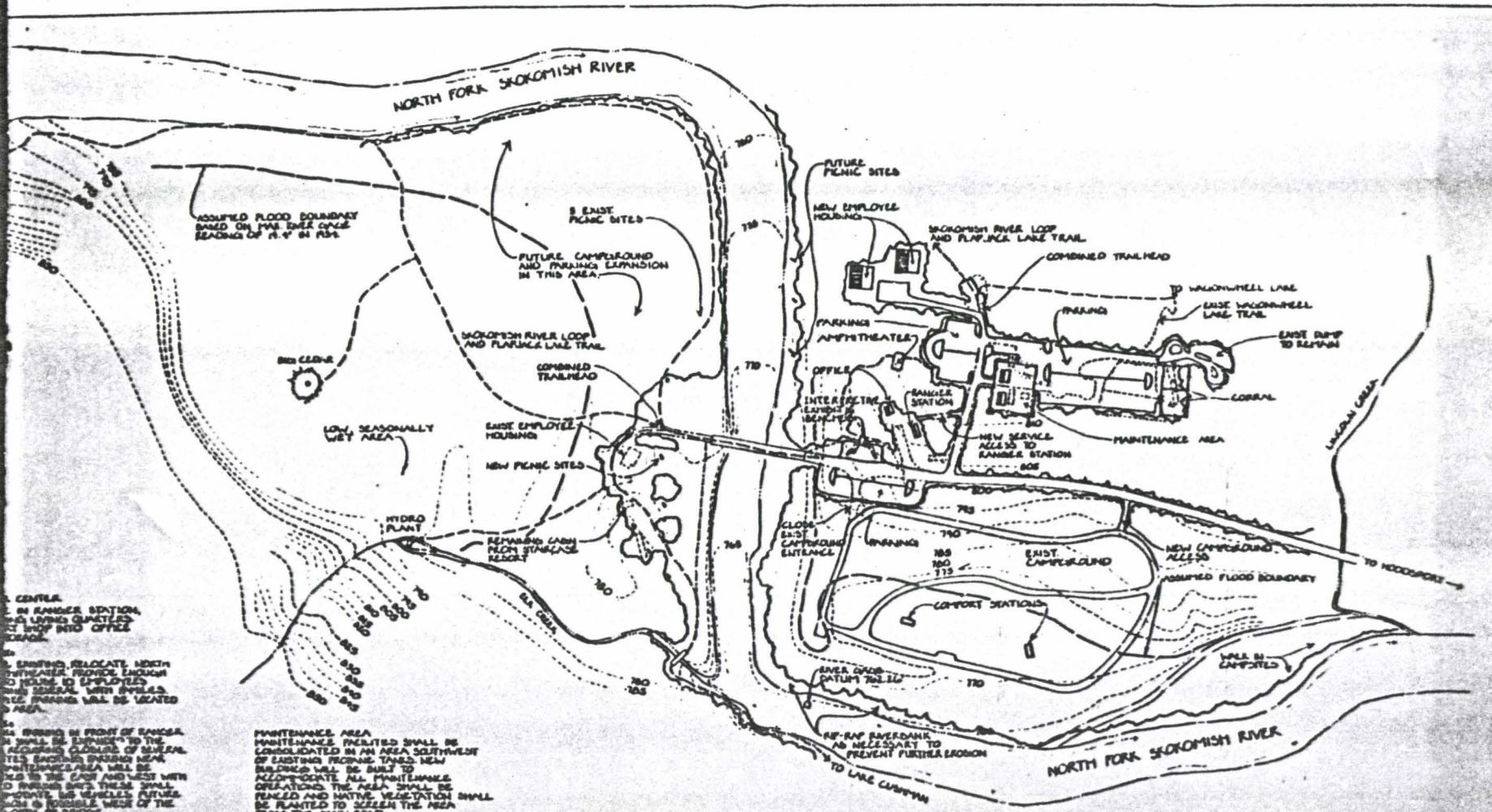
2. Barrier rock and crushed rock will be imported.

3. Native plant species will be used to replant.

4. Project limits will be specified on project plans. Construction vehicles would be restricted to these limits.

5. New housing will be constructed and habitable prior to removal of existing housing.

6. Topsoil stockpiled and replaced.



CENTER.
IN RANGER STATION.
LIVING QUARTERS
SHOP INTO OFFICE
STORAGE.

EXISTING. RELOCATE NORTH
MAINTENANCE. PROVIDE ENOUGH
HOUSING TO DEVELOPED
SEASONAL WORK SHELLS.
PARKING WILL BE LOCATED
AREA.

PARKING IN FRONT OF RANGER
SHALL BE ENLARGED TO THE
ACCOMMODATE OF SEVERAL
CARS. ENLARGED PARKING NEAR
MAINTENANCE AREA WILL BE
TO THE EAST AND WEST WITH
PARKING SPACES. THESE SHALL
CONCRETE AND SHELLS. FUTURE
IF POSSIBLE WEST OF THE
NORTH OF PARKING.

ENTRANCES TO THE SOUTH
CLOSE CAMPSITES AS NECESSARY
OF PARKING AREA AND ENTRANCE
CAMPSITES WILL BE UPGRADED
PARKING SPACES
ADDITIONAL PLANTINGS FOR
PROPER PRIVACY

AREA
GRID CLEARING WEST OF RIVER
RIVERBANK WHERE EXISTING
HOUSING IS LOCATED.
EXPANSION IS POSSIBLE ALONG
SKOKOMISH RIVER NORTH OF
ACCESS.

MAINTENANCE AREA
MAINTENANCE FACILITIES SHALL BE
CONSOLIDATED IN AN AREA SOUTHWEST
OF EXISTING PROPANE TANKS. NEW
BUILDINGS WILL BE BUILT TO
ACCOMMODATE ALL MAINTENANCE
OPERATIONS. THE AREA SHALL BE
FENCED AND NATIVE VEGETATION SHALL
BE PLANTED TO SCREEN THE AREA
FROM THE MAIN ROAD.

TRAILS
TRAILHEADS HAVE BEEN CONSOLIDATED
TO TWO LOCATIONS. ONE EAST OF THE
RIVER SERVES SKOKOMISH RIVER LOOP,
FLAPJACK LAKES AND WAGONWHEEL
LAKE TRAILS. SOME NEW TRAIL WILL BE
REQUIRED TO TIE IN WAGONWHEEL LAKE
TRAIL. THE OTHER LOCATION WEST OF
THE RIVER WILL SERVE SKOKOMISH
RIVER LOOP, FLAPJACK LAKES AND LAKE
CUSHMAN TRAILS AS THEY EXIST.

CORRAL
HORSE CORRAL WILL BE REDUCED IN
SIZE SIGNIFICANTLY BUT TWO PENS
WILL BE RETAINED.

LEGEND
- CONTOUR
- GRAVEL ROAD
- PAVED ROAD
- STREAM BANK
- EXIST. FACILITY TO BE DELETED
- TRAIL
- CANOPY EDGE

SCALE OF FEET
0 50 100 200
NORTH

STAIRCASE DEVELOPMENT PLAN
PREFERRED ALTERNATIVE

DESIGNED
DRAWN
CHECKED
APPROVED
DATE 3/30

SHEET NO. 1 OF 1 SHEETS

DRAWING NO. 144 80 054

SCORP - FIFTH EDITION

CHAPTER I

INTRODUCTION

PLAN PURPOSE

The purpose of this Plan is to provide a formal document on which policy decisions can be based. These decisions should optimize the limited funds, manpower, and resources available to this state for the recreational benefit of its citizens, visitors, and future generations. The Plan is designed to show the relationship of physical resources and developed facilities to opportunities for participation now and in the future. It will serve as a general guide so that goals and objectives may be translated into attainable programs for all levels of government, private enterprise, special interest groups, groups with unique needs, and individual citizens.

The purposes of this Plan were accomplished by completing the following basic objectives:

- Developing proposed strategies for solutions to the problems identified within each of the major issues. (See Chapter II.)

- Identifying and evaluating the major issues facing parks and recreation in Washington today. (See Chapter III.)

- Identifying the present and future needs for outdoor recreation resources through the identification and analysis of present public participation in relationship to existing resources and developed facilities. (See Chapter IV.)

- Establishing proposed courses of action designed to conserve and develop Washington's outdoor recreation resources for continual utilization and enjoyment by present and future generations. (See Chapter V.)

AUTHORITY

The Interagency Committee for Outdoor Recreation, the IAC, was created in 1964 with the passage of Initiative 215, the Marine Recreation Land Act (RCW 43.99). This Act designated the IAC as the administering agency of a grant-in-aid program for state and local agencies of government, through the distribution of funds from the Outdoor Recreation Account. The Committee consists of twelve members. Five citizen members are appointed by the Governor for three-year terms, one of whom serves as Chairman. Directors of those seven state agencies most directly concerned with outdoor recreation complete the Committee. These agencies are the Departments of Commerce and Economic Development, Ecology, Fisheries, Game, Natural Resources, Parks and Recreation, and Transportation. Only four of the state agencies represented on the Committee (Fisheries, Game, Natural Resources, and Parks) normally present projects to the IAC for funding. The member mix is designed to best represent all interests and priorities.

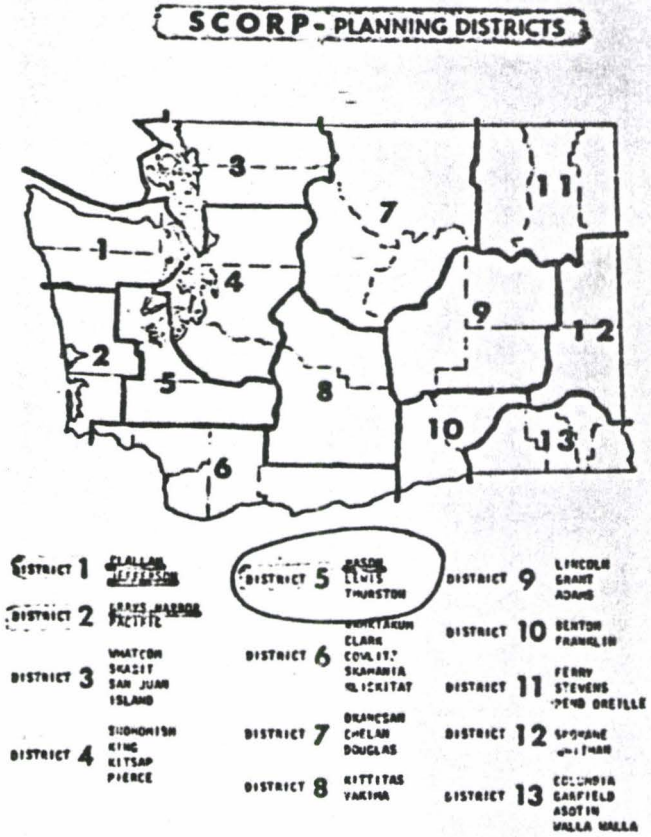
In 1967, the Legislature amended the Marine Recreation Land Act authorizing the IAC to prepare and maintain a comprehensive plan for the development of the outdoor recreation resources of the state. This Plan is known as the "Washington Statewide Comprehensive Outdoor Recreation Plan" (SCORP).

The planning functions of the IAC are guided by the requirements contained in the Marine Recreation Land Act (RCW 43.99), as amended, and the Heritage Conservation and Recreation Service (HCRS) Grant-in-Aid Manual. This Plan was prepared in compliance with those documents.

PLAN ORGANIZATION

Planning Districts

Since first established in August, 1969, by Executive Order, thirteen Planning Districts have been used in SCORP for discussion and analysis purposes. These Planning Districts have been continued for this Fifth Edition, except that Whitman County is now included in District Twelve, rather than in District Thirteen, as in previous editions.



Studies

Two principal statewide studies were accomplished to provide the base data used in this Plan. They were:

C. FORECASTING

Estimating future consumption of recreational opportunities is based, in a large part, on two major trends:

- Forecasts of future population.
- Increases in participation which are at a rate faster than just population growth.

Offical state population forecasts are developed by the Population, Enrollment, and Economic Studies Division of the Office of Financial Management (OFM). These forecasts appear in their publication Washington State County Population Forecast by Age and Sex: 1970 - 2005 (Second Edition: June, 1978). Recreational activity projections developed for this edition of SCORP are based on these population forecasts. The following table summarizes these forecasts by SCORP Planning Districts.

POPULATION FORECASTS BY SCORP PLANNING DISTRICTS
(In 1,000's)

Planning District	1975	1980	1990	2000
1	51.4	57.6	68.7	74.3
2	77.0	79.7	84.3	86.6
3	183.3	208.5	248.7	274.0
4	1,944.0	2,089.4	2,511.4	2,783.4
5	161.8	190.8	245.7	283.1
6	247.5	283.9	350.8	401.5
7	86.2	84.5	105.0	109.7
8	178.9	186.4	207.2	219.2
9	66.0	72.9	81.8	87.5
10	102.3	124.6	154.3	170.8
11	33.4	42.6	52.6	57.8
12	340.0	360.8	402.0	426.2
13	65.1	68.1	74.5	77.0
STATE TOTAL	3,536.9	3,859.8	4,587.0	5,051.1

Many activities are growing at a rate which is faster than population growth. To accommodate this situation, and incorporate it into the activity projections, certain recreational activities were grouped into three growth categories, as follows:

- Stable.
- Slow growth (30 percent increase by 2000).
- Rapid growth (70 percent increase by 2000).

These growth rates are incorporated into the gravity model, which is part of the Regional Recreation Data Program of the Pacific Northwest River Basins Commission. This program takes the activity projections, which the IAC develops at the county of origin for Washington State, incorporates similar data from Idaho and Oregon, and then transfers these demand estimates from the county of origin to the county of destination via a gravity model. In the process of doing this, it also factors in the growth rates, which are in addition to population growth.

III. STATEWIDE PATTERNS

A. SUPPLY

Of all the states in the Union, Washington is among the best endowed with scenic and recreational resources. It shares some of these resources with each of the other Pacific Northwest states and British Columbia. The band of mountains extending north through the Pacific Coast states from California, links Washington to Oregon and British Columbia. Another major continental feature, the Rockies, forms ties between this state, and both Idaho and Montana.

Land is not the only binding force between Washington and its neighbors. Washington and Oregon border the Columbia River, while portions of Oregon, Washington, and British Columbia share the Pacific Coast shoreline. Washington and British Columbia alone share the islands and waters within the straits to the north and northwest of Puget Sound. But Washington alone combines all of these resources. Like several of its neighbors, Washington has large conifer forests, hundreds of lakes and streams, and abundant fish and wildlife. To these are added such other attractions as Puget Sound and the San Juan Islands, Mt. Rainier, the Olympic Mountains and the Rain Forest, the North Cascades, Grand Coulee, and the deserts of eastern Washington.

It is impossible to adequately quantify the diversity and quality of the recreational resources available in Washington State. Nevertheless, the IAC's Public Lands Inventory does provide some insight into the current provision and nature of these recreational opportunities. The following table summarizes the results of the Supply Inventories for Washington State.

WASHINGTON RECREATIONAL SUPPLY INVENTORY

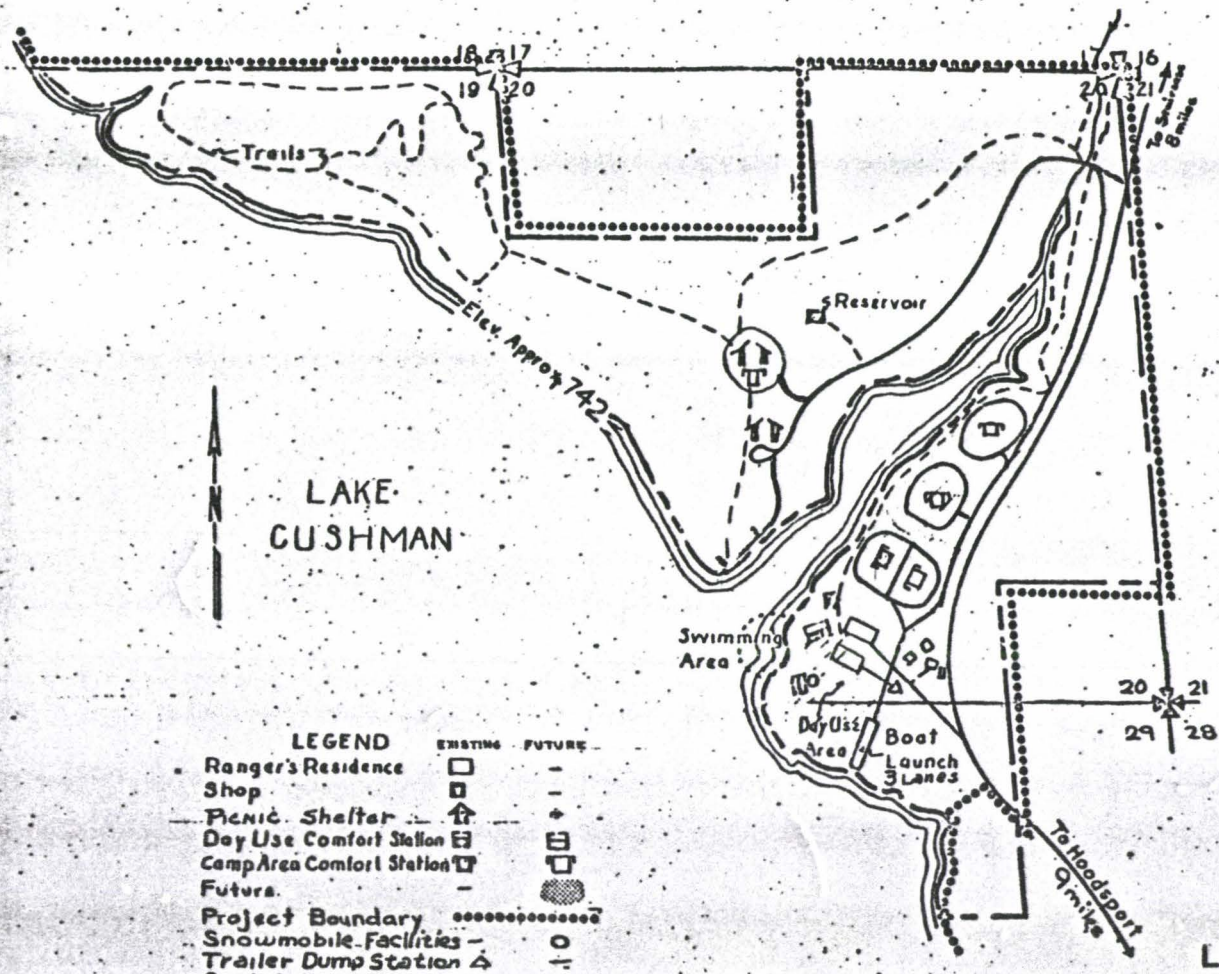
STATE TOTAL

73% of the state

FACILITY[1]	LOCAL	STATE	FEDERAL	PRIVATE	TOTAL	Forest	Forest % of State Total
# RECREATIONAL SITES	3160.0	846.0	695.0	1518.0	6219.0	25	4%
TOTAL ACRES	66361.0	3735057.0	11420135.9	474570.0	15696123.9	651,142	
DEVELOPED ACRES	25350.6	8469.0	7803.9	*	41623.5		
UNDEVELOPED ACRES	41010.4	875395.3	3563934.5	*	4480340.2		
MULTIPLE-USE ACRES	0.0	2851192.7	7848397.5	*	10699590.2		
ATHLETIC FIELDS	3064.0	7.0	8.0	*	3079.0		
ACRES ATHLETIC FLDS	6776.1	14.6	25.6	*	6816.3		
LIGHTED TENNIS CRTS	344.0	0.0	0.0	*	344.0		
UNLIGHTED TENNIS CTS	1194.0	5.0	3.0	*	1202.0		
TOTAL TENNIS COURTS	1538.0	5.0	3.0	162.0	1708.0		
MULTI-PURPOSE COURTS	693.0	0.0	1.0	*	694.0		
GOLF PAR-3 HOLES	90.0	0.0	0.0	126.0	216.0		
GOLF REGULATION HOLE	477.0	18.0	0.0	1962.0	2457.0		
OUTDOOR POOLS	108.0	2.0	2.0	*	112.0		
INDOOR POOLS	62.0	0.0	0.0	*	62.0		
TOTAL POOLS	170.0	2.0	2.0	142.0	316.0		
SQ.FT. OUTDOOR POOLS	502856.0	1050.0	7000.0	*	510906.0		
SQFT INDOOR POOLS	297919.0	0.0	0.0	*	297919.0		
SQFT TOTAL POOLS	891168.0	1050.0	7000.0	298823.0	1198041.0		
LINEAL FT SWIM BEACH	40760.0	12701.0	22250.0	108930.0	184641.0		
PAVED LAUNCH LANES	209.0	293.0	54.0	*	556.0		
UNPAVED LAUNCH LANES	39.0	155.0	89.0	*	283.0		
TOTAL LAUNCH LANES	248.0	448.0	143.0	259.0	1098.0		
BOT MOOR SLPS/SPCES	6276.0	791.0	185.0	10741.0	17993.0		
BOAT MOORAGE BUOYS	4.0	306.0	6.0	*	316.0		
BOT CAR/TRLR PKING	4074.0	19979.0	1278.0	*	25331.0		
FISH SHORE ACCESS	293.0	536.0	539.0	*	1368.0		
FISH PIER/DOCK	98.0	10.0	34.0	*	142.0		
PICNIC TABLES	10563.0	6639.0	2891.0	*	20093.0		
PICNIC SHELTERS	445.0	175.0	23.0	*	643.0		
CAMPING UNITS	2475.0	7244.0	9101.0	22192.0	41012.0		
MILES - HIKE TRLS	410.9	589.6	6298.2	1583.0	8881.7	147 -	2%
MILES - BRIDLE TRLS	115.2	258.2	5280.3	809.0	6462.7		
MILES - BICYCLE TRLS	142.0	0.4	54.0	102.0	298.4		
MILES - MTRCYCLE TRL	17.6	330.7	1320.0	*	1668.3		
MILES - 4-WHL DR TR	2.0	27.9	71.0	*	100.9		
MILES - SNOWMBLE TRLS	4.0	132.1	487.0	721.0	1344.1		
MILES - X-SKI/SNWSO	10.5	0.0	1654.0	*	1664.5		
PLAYGROUND EQUIPMENT	1579.0	33.0	8.0	1.0	1621.0		
TOT LOTS	299.0	1.0	3.0	*	303.0		
NATURE TRAILS	176.0	14.0	63.0	1.0	254.0		
DAY CAMP AREAS	79.0	9.0	2.0	34.0	124.0		
GROUP CAMP FACILITIS	35.0	37.0	53.0	*	125.0		
ENV. LRNING CENTERS	38.6	8.0	2.0	*	48.0		

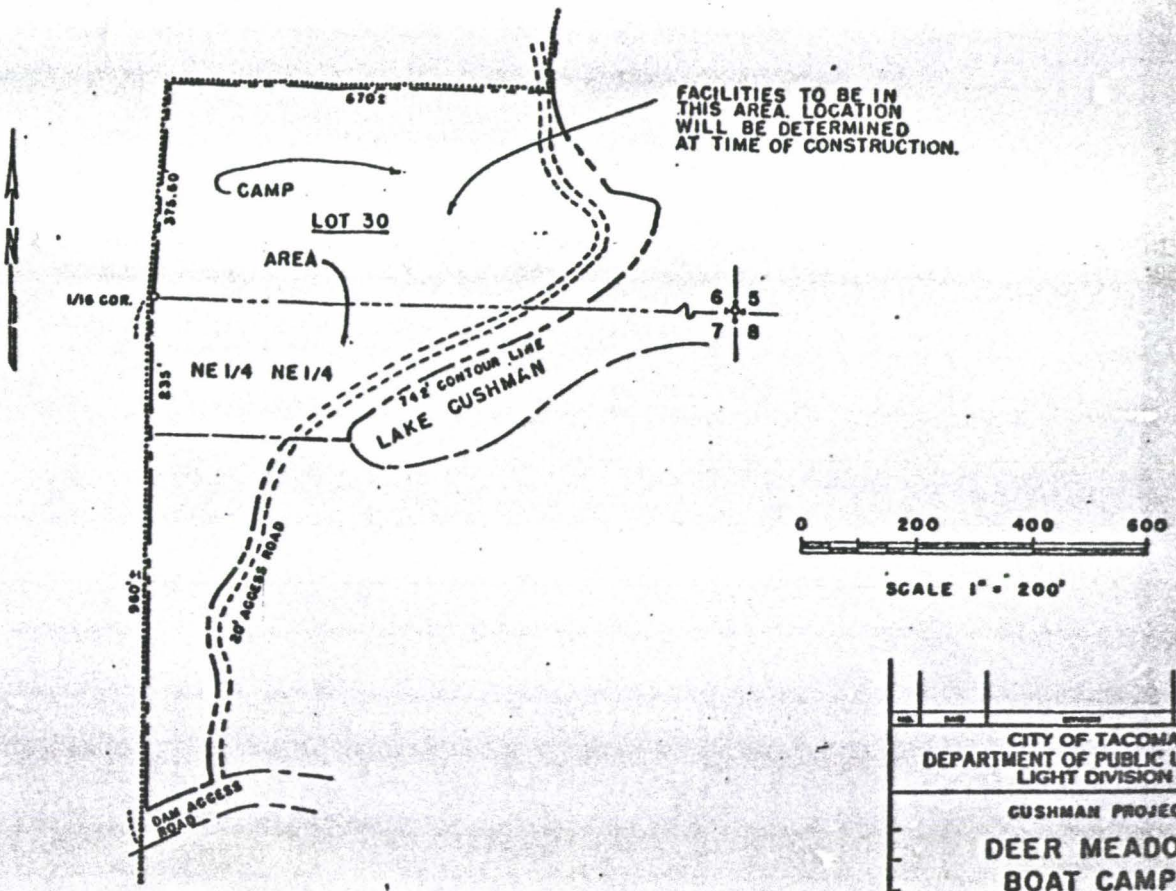
[1] See Page IV.4 for a description of the inventory categories.

* Information not available.



LAKE CUSHMAN STATE PARK MASTER PLAN

EXHIBIT R-9



PROJECT BOUNDARY .....

T 22 N., R 4 W., W. M.

11.4± ACRES

EXHIBIT R-7

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
LIGHT DIVISION

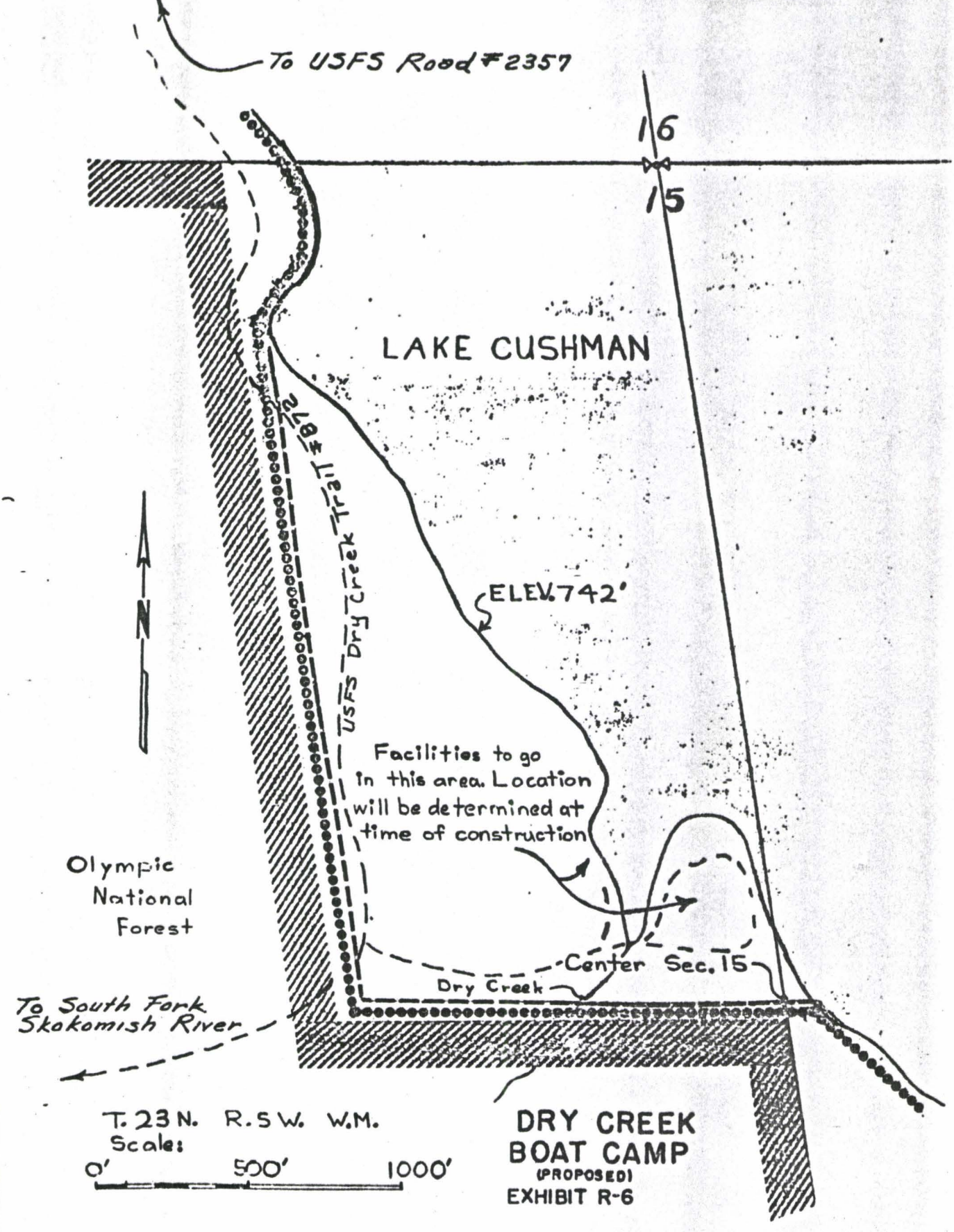
CUSHMAN PROJECT

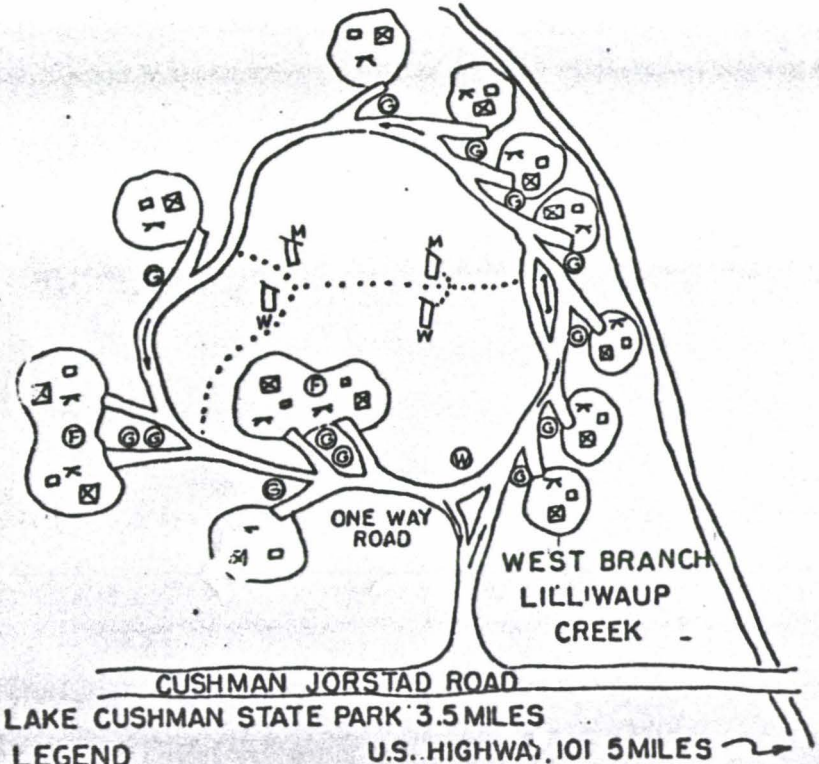
DEER MEADOW
BOAT CAMP
(PROPOSED)

460:R-7

Page 36

EX 4.1 D


To USFS Road #2357
16
15
LAKE CUSHMAN
USFS Trail #872 Dry Creek
ELEV. 742'
N
Facilities to go in this area. Location will be determined at time of construction
Olympic National Forest
Center Sec. 15
Dry Creek
To South Fork Skokomish River
T. 23 N. R. 5 W. W.M.
Scale:
0'
500'
1000'
DRY CREEK BOAT CAMP
(PROPOSED)
EXHIBIT R-6



N

SCALE
0 50 100 150

SEC. 10 T. 23N R. 4W W.M.

LAKE CUSHMAN STATE PARK 3.5 MILES

U.S. HIGHWAY 101 5 MILES

LEGEND

- INFORMATION SIGN
- FIRE RING (F)
- TABLE
- STOVE
- TENT SPACE
- GARBAGE CAN (G)
- WATER-HANDPUMP (W)
- FOOT TRAIL .....

FACILITIES

- TABLES 13
- STOVES 13
- GARBAGE CANS 13
- TOILETS 4
- HANDPUMP 1
- FIRE RINGS 2

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
LIGHT DIVISION

DEPT. OF NATURAL RESOURCES
LILLIWAUP CREEK
CAMP & PICNIC AREA
EXHIBIT R-19

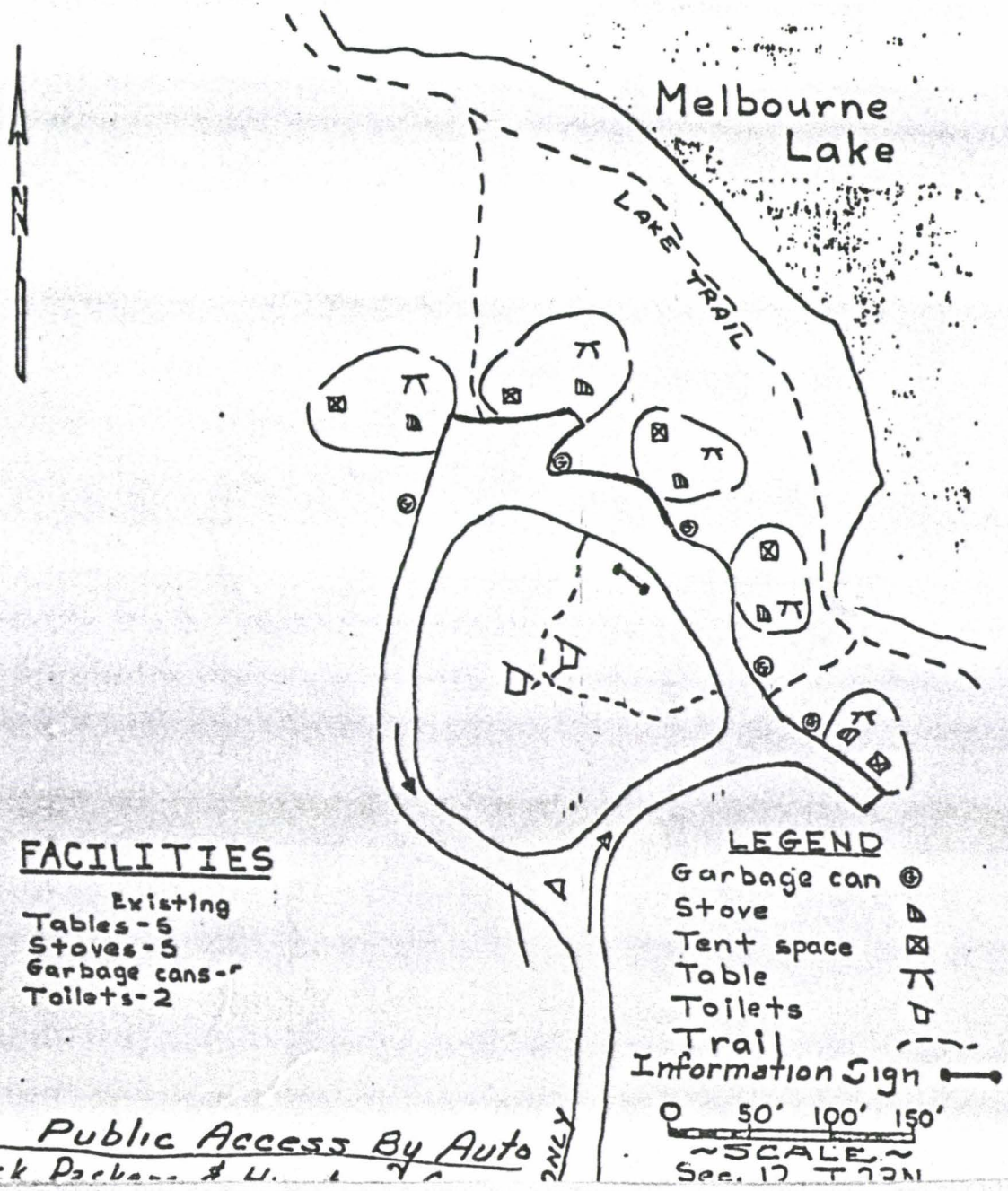
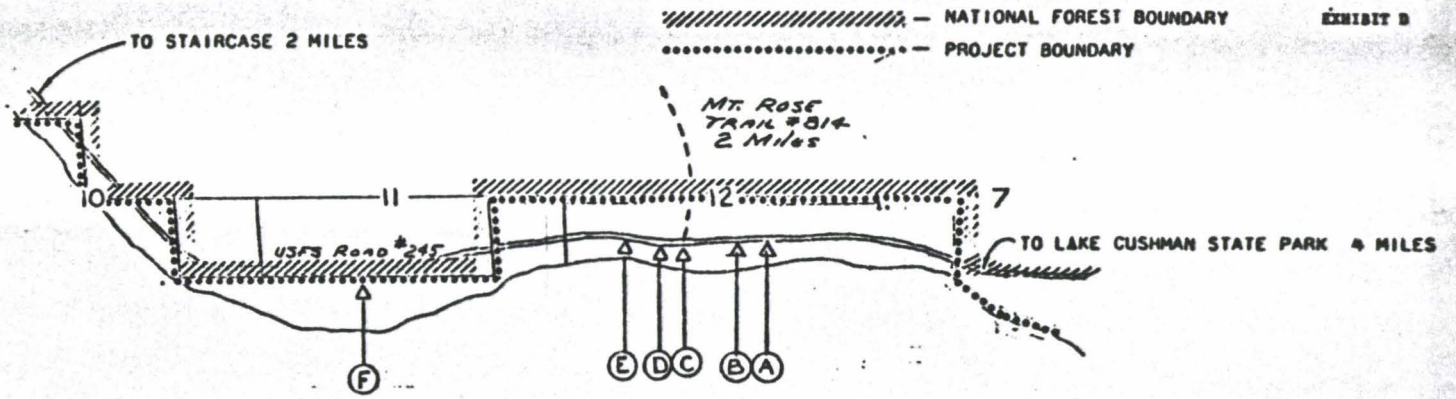

N
Melbourne
Lake
LAKE TRAIL
FACILITIES
Existing
Tables-5
Stoves-5
Garbage cans-
Toilets-2
LEGEND
Garbage can
Stove
Tent space
Table
Toilets
Trail
Information Sign
0 50' 100' 150'
~SCALE~
Public Access By Auto
Back Packers & H
Sec. 12 T 32N

EXHIBIT B



A. THREE PICNIC TABLES, ONE GARBAGE CAN
B. TWO PICNIC TABLES, TWO CHARCOAL FIRE PITS, ONE GARBAGE CAN
C. TWO PICNIC TABLES, TWO CHARCOAL FIRE PITS, ONE GARBAGE CAN
D. THREE PICNIC TABLES, FIVE CHARCOAL FIRE PITS, ONE GARBAGE CAN
E. FIVE PICNIC TABLES, FOUR CHARCOAL FIRE PITS, TWO GARBAGE CANS
F. TWO PICNIC TABLES, ONE GARBAGE CAN

EACH SITE HAS AN INFORMATIVE SIGN

EXHIBIT R-5

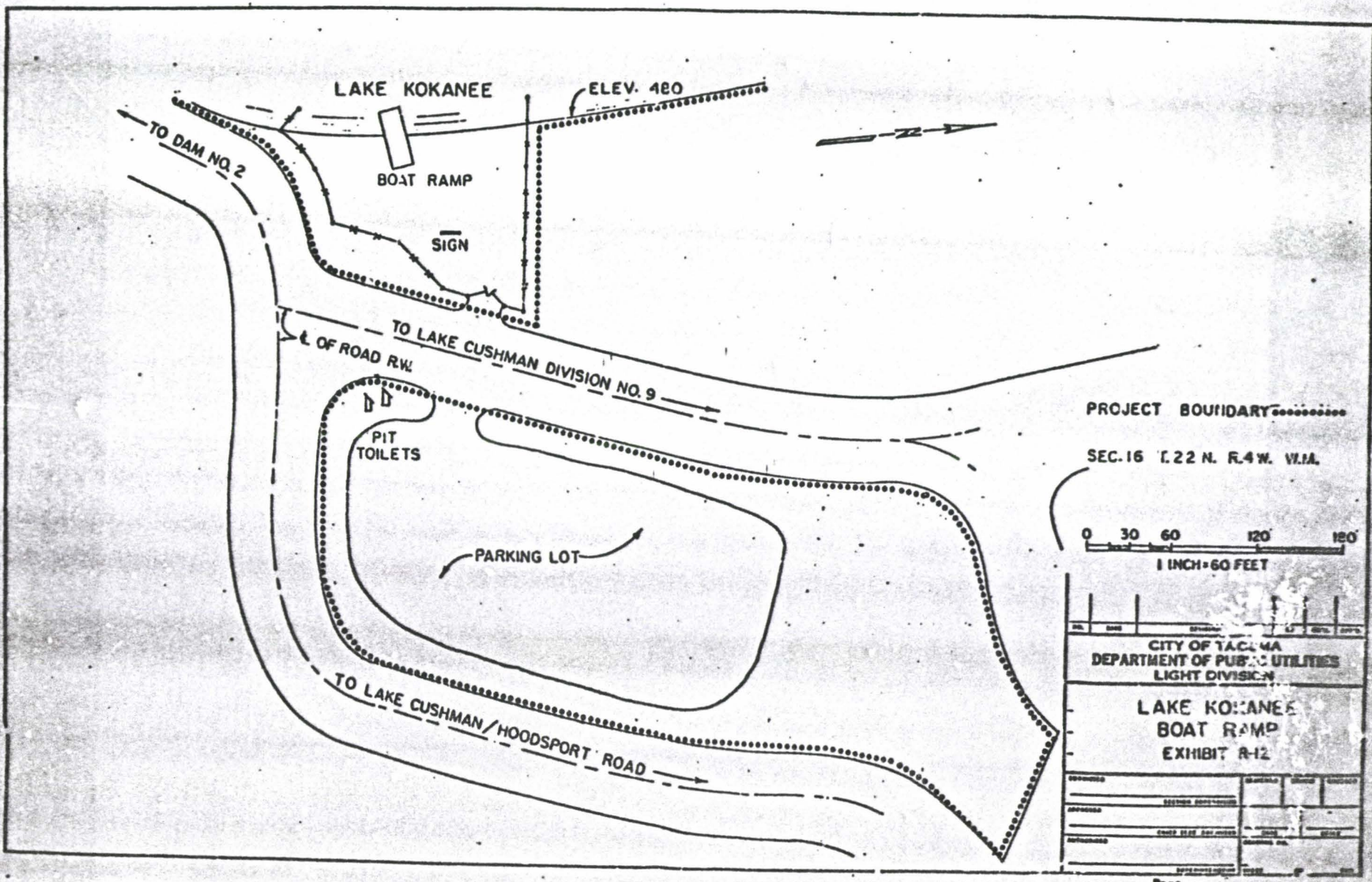
0 1000 2000 4000 6000 FEET 8000

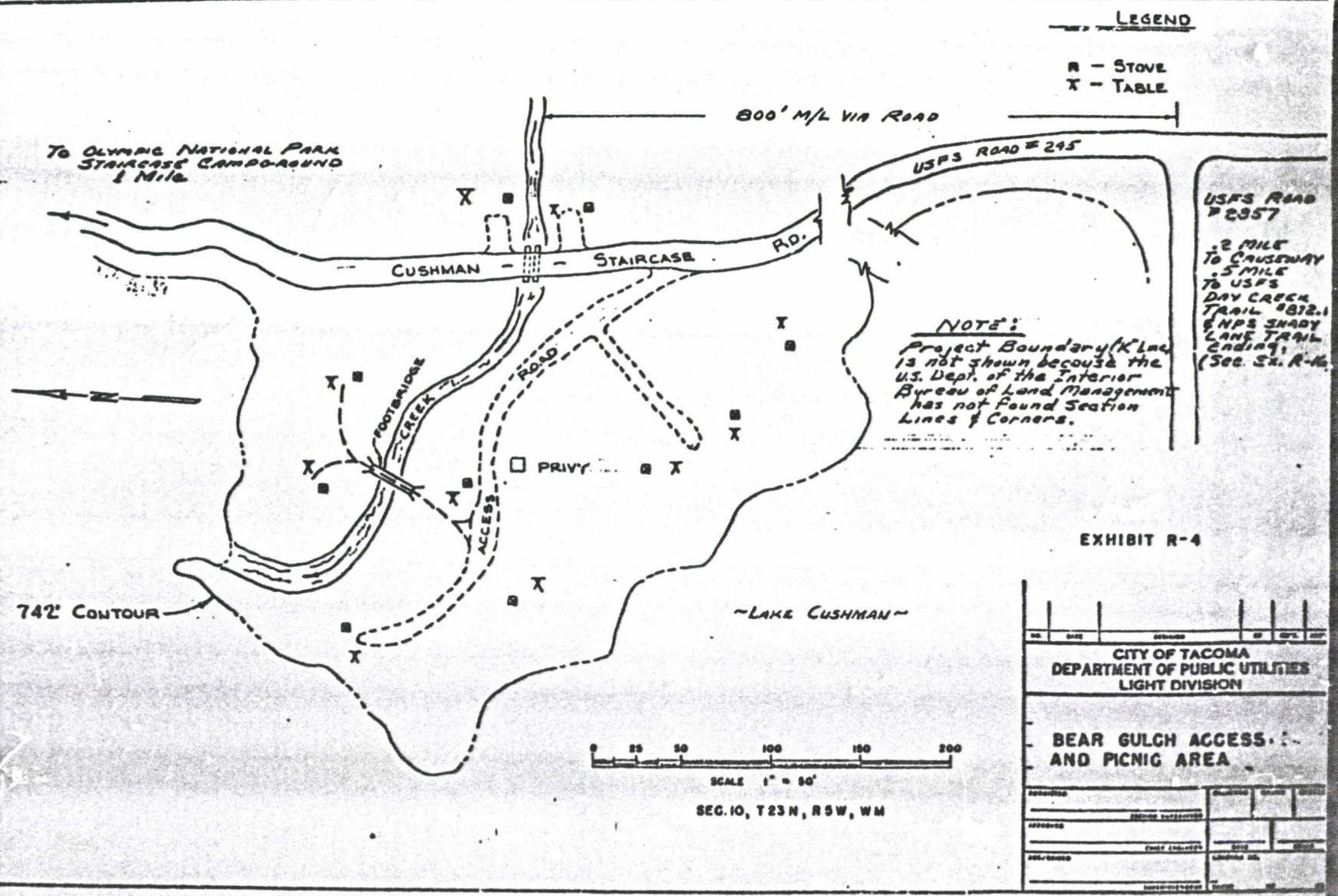
SCALE 1" = 2000'

T 23 N, R 5 W, W.M.

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
LIGHT DIVISION

ROADSIDE PUBLIC ACCESS & PICNIC AREA


LAKE KOKANEE
ELEV. 480
TO DAM NO. 2
BOAT RAMP
SIGN
TO LAKE CUSHMAN DIVISION NO. 9
℄ OF ROAD R.W.
PIT TOILETS
PARKING LOT
TO LAKE CUSHMAN/HOODSPORT ROAD
PROJECT BOUNDARY
SEC. 16 T. 22 N. R. 4 W. W.M.
0 30 60 120 180
1 INCH = 60 FEET
CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
LIGHT DIVISION
LAKE KOKANEE
BOAT RAMP
EXHIBIT R-12


LEGEND
R – STOVE
T – TABLE
800' M/L VIA ROAD
TO OLYMPIC NATIONAL PARK STAIRCASE CAMPGROUND 1 MILE
USFS ROAD # 245
USFS ROAD # 2357
.2 MILE TO CAUSEWAY
.5 MILE TO USFS DAY CREEK TRAIL #812.1 & NPS SHADY LANE TRAIL ENDING (See Sx. R-4)
CUSHMAN – STAIRCASE RD.
FOOTBRIDGE
CREEK
ROAD
PRIVY
ACCESS
NOTE:
Project Boundary (K Line) is not shown because the U.S. Dept. of the Interior Bureau of Land Management has not found Section Lines & Corners.
742' CONTOUR
~LAKE CUSHMAN~
0 25 50 100 150 200
SCALE 1" = 50'
SEC. 10, T 23 N, R 5 W, WM
EXHIBIT R-4
CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
LIGHT DIVISION
BEAR GULCH ACCESS AND PICNIC AREA

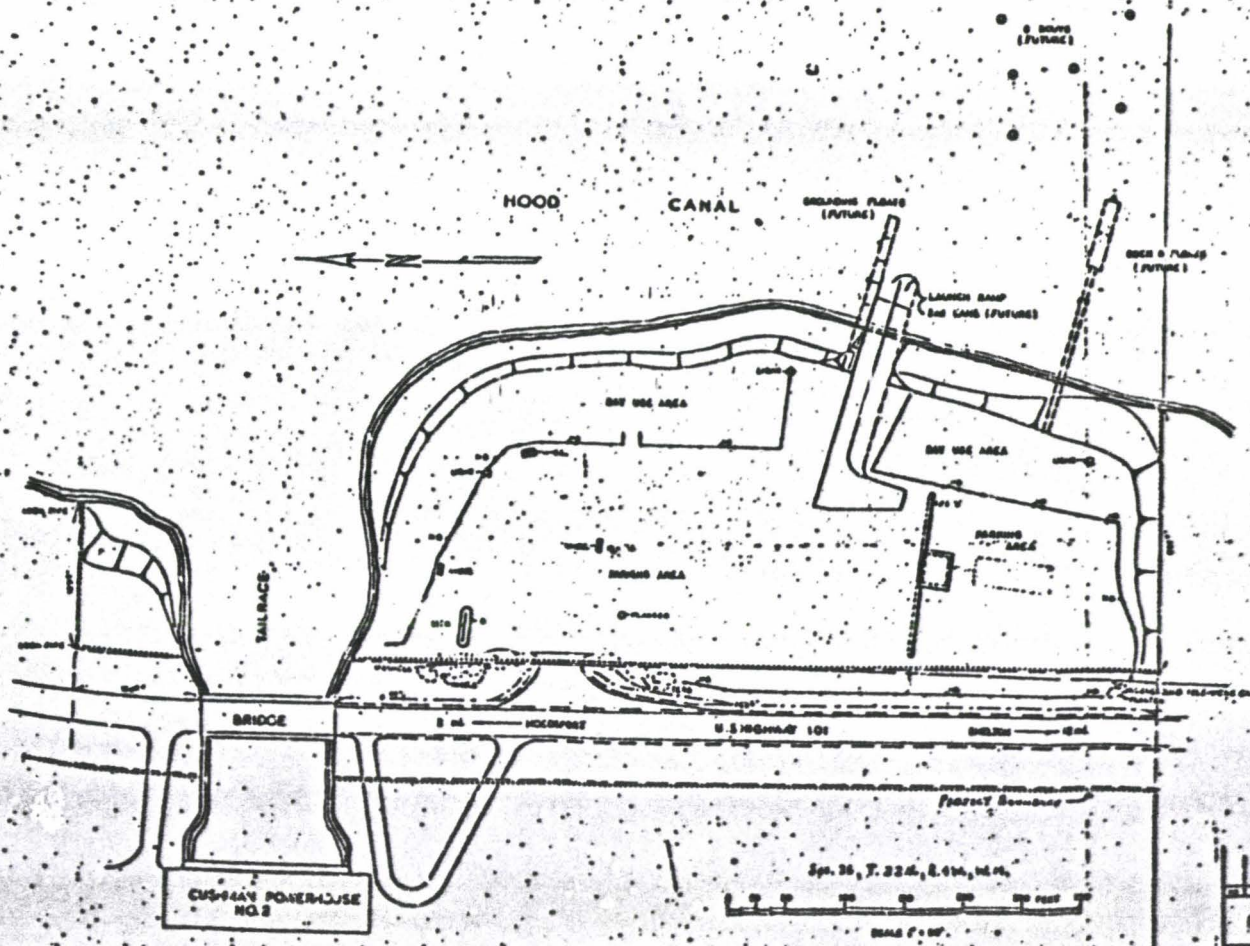
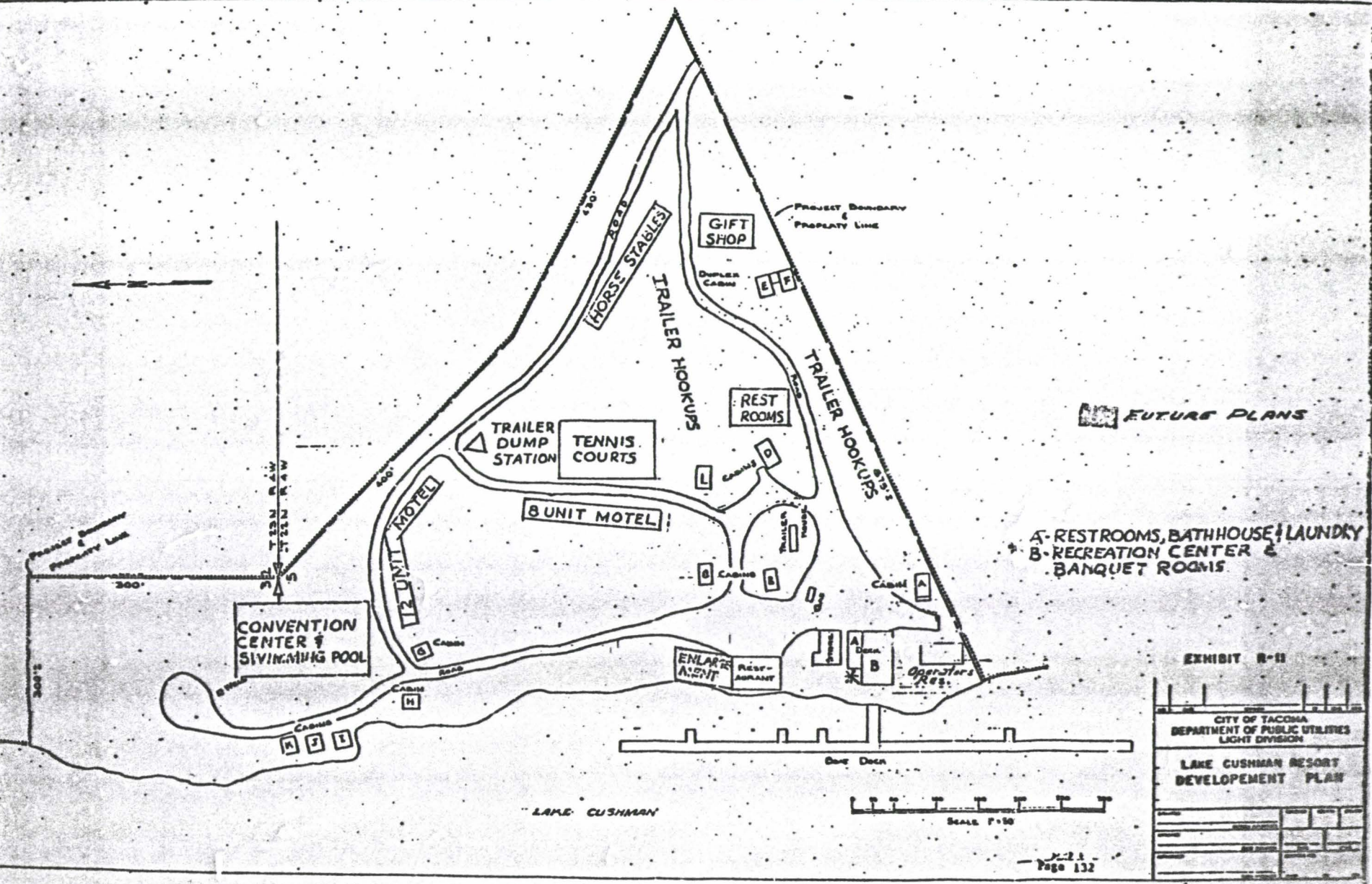
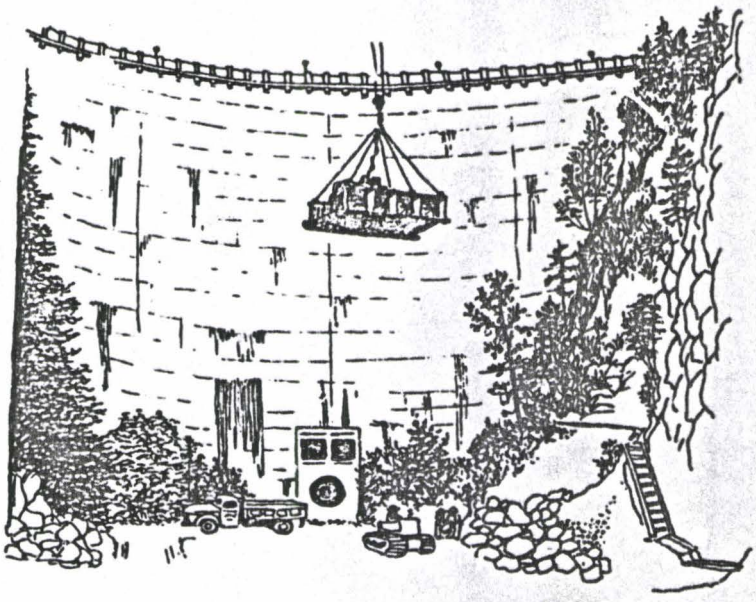


EXHIBIT R-14

CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
LIGHT DIVISION

HYDRO PARK
DEVELOPEMENT PLAN


GIFT SHOP
PROJECT BOUNDARY & PROPERTY LINE
HORSE STABLES
TRAILER HOOKUPS
TRAILER HOOKUPS
REST ROOMS
TRAILER DUMP STATION
TENNIS COURTS
8 UNIT MOTEL
12 UNIT MOTEL
CONVENTION CENTER & SWIMMING POOL
ENLARGE AIRPORT
Operators Res.
Boat Dock
LAKE CUSHMAN
FUTURE PLANS
A- RESTROOMS, BATHHOUSE & LAUNDRY
B- RECREATION CENTER & BANQUET ROOMS
EXHIBIT R-11
CITY OF TACOMA
DEPARTMENT OF PUBLIC UTILITIES
LIGHT DIVISION
LAKE CUSHMAN RESORT
DEVELOPEMENT PLAN



CHAPTER V
The Construction of Cushman Dam

In early 1912 a man named Wickstrom applied for a power franchise lease from Mason County. The lease would have been very cheap, clearing a nice profit for Wickstrom who had secretly agreed to sell the lease to the city of Seattle for $640,000. Seattle at that time was looking at several dam sites to increase the amount of available electricity for the city. In addition to the Cushman site another site was explored and proposed, a location on the Skagit River. The proposed site on Lake Cushman caused a great deal of controversy, both in Seattle and at the lake, where the settlers were very disturbed. There was much debate but Seattle engineers finally decided to go ahead with the project, putting it to a vote for funds from Seattle citizens on March 15, 1912. The bond issue passed easily and the dam seemed to be a definite reality. The city of Seattle moved ahead and got as far as condemnation notices for all settlers in the Lake Cushman valley.

In 1913 the city abandoned its plans for the dam site as quickly as they had been adopted. The principal reason for dropping their plans was the high cost of transmission lines, which Seattle felt would have to be run from Lake Cushman south to Olympia and back up north

to Seattle. In addition, the site on the Skagit was considered more promising and safe. The settlers at Lake Cushman celebrated their victory, but a proposed dam was inevitable.

In 1920 the city of Tacoma filed for a lease for the same site Seattle originally had proposed. The lease was granted and Tacoma moved toward what would be the eventual completion of Cushman Dam and the demise of a settlement. Before construction of the dam could begin, however, the city of Tacoma faced a great many legal difficulties to clear the way for construction.

In 1921 the suits for actual condemnation of the lands required for the Tacoma power project began. The suits that reached the courts were very lengthy and bitter. Russell Homan, owner of the Antlers Hotel, was the first to challenge the city in the courts. The city originally offered Homan $9,000 for his property. Homan balked and said he would accept $18,000 out of court. The trial proceeded, and much to the dismay of Tacoma lawyers, Homan was awarded $17,000 for his property on Lake Cushman. Following the tourist season of 1922, the Antlers officially ceased operations as a tourist resort, ending roughly 25 years of operation, during which time many pleasant memories were provided to those who were fortunate enough to visit the hotel.

The Putnam case with Tacoma was a very lengthy one. Tacoma lawyers originally offered Putnam a paltry $15,000 for his beautiful farm which had been very productive. Putnam's case was handled by his old fishing friend and attorney, Walter Bailey, senior partner in Balfour, Guthrie & Co. – a firm much interested in turning a profit. The litigation over the Lake Cushman property was the biggest and longest in Mason County. Putnam was awarded $66,000 from the original jury. Tacoma lawyers demanded a retrial which was never held; Putnam and Tacoma finally settled for $60,000 out of court.

In 1923 the Putnams packed their belongings and sadly searched for a new home. Their search took them to Hillsboro, Oregon, an excellent location for farming and raising livestock. The Putnams moved reluctantly and tearfully. Their home for over 30 years would soon be under more than 100 feet of water.

Russell Homan and his attache, Rueben Harps, were the only two of the original settlers to remain in the area after construction of the dam. Homan located himself a new claim on the south side of the lake, safe from the new lake backed up by Cushman Dam. The new home was constructed near a stream for the use of electricity, and built partially out of lumber taken from the Antlers. The home was furnished with the old furnishings from the hotel, with some new

acquisitions added. Homan called his house the "Ark," and spent the rest of his days there, dying in the early 30's. Rueben Harps inherited the home but his tenure of ownership was even shorter; he died one year after Homan. The home was put up for sale by a Tacoma realty firm and sold to Marcus Nalley of potato chip fame. The home still stands today, abandoned and ransacked, referred to as the Nalley house.

A. G. Cushman's beautiful home had long since been run down; he was awarded the sum of $6,000 for house and property.

In order to clear off the forest that would soon be under water the Phoenix Logging Company was awarded a six-year contract to clear the heavily-timbered land, beginning in 1920. The Phoenix Company used all six years, finishing just before water began rising from the completion of the dam.

The construction of Cushman Dam was no small project. It required a great deal of time and money. A professor said that it would never work and would tumble down; fishermen complained about the loss of trout; many wondered what the city would do with all the power generated from its monstrous turbines.

The dam took the form of what is known as a constant-angle arch dam. Its base was 50 feet thick, tapering to eight feet at the top, and stretched 770 feet in length across a broad, deep, rock-walled canyon, a natural site for that type of dam.

Cushman Dam is a massive structure even by modern standards. When completed in 1926 it formed the second largest reservoir in the west. Only the lake behind Roosevelt Dam in Arizona was larger. At the time of completion, Cushman Dam at 275 feet was higher than the tallest building in Tacoma.

A Portland firm, A. Guthrie Co., won the general contract for the dam, bidding $881,000. The total investment in the dam reached the sum of $4,255,658, which was quite cheap compared to original estimates. The city of Tacoma saved $80,000 from its original estimates by running the transmission lines across the treacherous Tacoma Narrows instead of selecting an easier, but longer, land route via Olympia. The masterpiece in engineering was heralded as the world's longest power span, more than a mile between supporting towers.

Concrete was poured for a full year down the flume called "Guthrie's River of Gold." At one period, six inches of rain fell in three days. Work was stopped several times when the Skokomish and Lake Cushman reached flood stage.

To help build the dam Davisson, Commissioner of Tacoma Public

EXHIBIT F

ECONOMIC NOTES
THE PACIFIC NORTHWEST AND THE NATION

JULY 1983
SUMMARY OF
BUSINESS CONDITIONS

NATIONAL

The rati of business inventories to sales dropped to 1.39 in May -- the lowest level in at least 15 years. Improvement in the ratio was attributable to strength in business sales -- May sales surged by 3.3%, the largest monthly increase since a 3.6% rise in May, 1979.

The capacity utilization rate for the nation's factories rose to 74.4% in June following a 73.7% rate in May. The June level was the highest since the 75.9% experienced in November, 1981. Manufacturing industries specializing in non-durable goods operated at a 77.8% rate in June compared to a 71.7% rate for durable goods manufacturers.

Producer prices in June rose a seasonally adjusted 0.5% -- the largest increase since an adjusted 0.6% rate last November -- after climbing 0.3% in May. Even with the sharp jump in June, prices overall declined at a 1.0% compound annual rate in the first six months of this year, compared with a 2.7% rise in the first half of 1982.

Housing starts posted a seasonally adjusted annual rate of 1,747,000 in June -- 92.0% above the June, 1982 figure -- following a revised 1,799,000 unit pace in May. In absolute terms, the housing start level for the first 6-months of 1983 is up 78.7% from the same time period last year.

REGIONAL

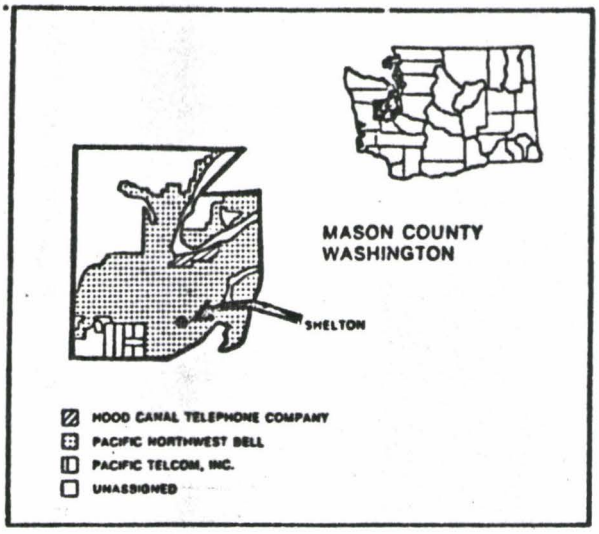
Lease Crutcher Construction Company of Bellevue started construction this month on Rembold Corporation's UPLANDS BUILDING east of Pier 66 in Seattle. The Seattle firm of Hewitt/Daly Architects designed the $8 million, 7-story structure to include five-levels of parking for 775 cars with 74,000 square-feet of office space on the upper two-levels. Completion is scheduled for January, 1984. The Uplands Building is the first phase of Rembold Corporation's $41 million proposed two-phase Pier 66 project.

Tenant owned BAYVIEW MEDICAL PROFESSIONAL CENTER -- a $2 million, 3-story, 25,777 square-foot medical office building -- is presently under construction in Newport, Oregon. William Rutledge & Associates of Bellevue, Washington was the architect. The contractor is Plaza Builders, Inc. of Kennewick, Washington. Project completion is anticipated for September, 1983.

Knutsen Construction Company of Milton, Washington -- owner/developer/contractor -- started construction in June on the $10 million, 205,000 square-foot SURPRISE LAKE SQUARE SHOPPING CENTER in Milton. The center will have three anchor stores, including a Safeway Super Store, and 45 other shops. A June, 1985 completion date is anticipated.

ECONOMIC CHARTS

1.



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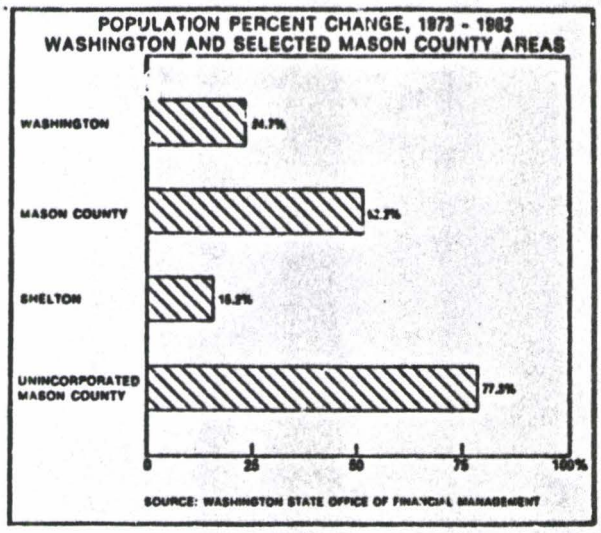

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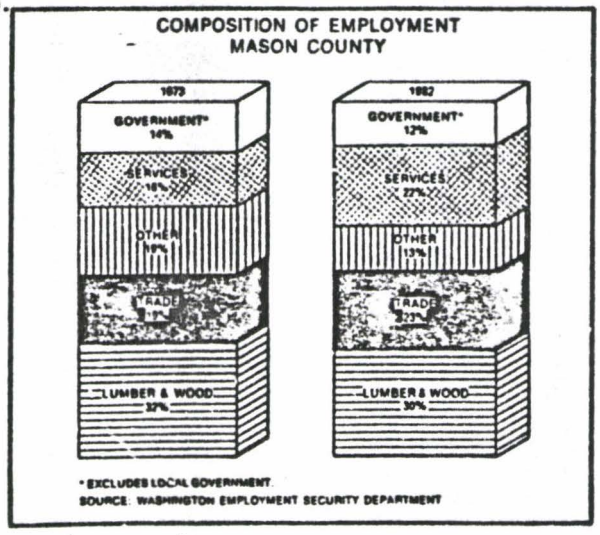

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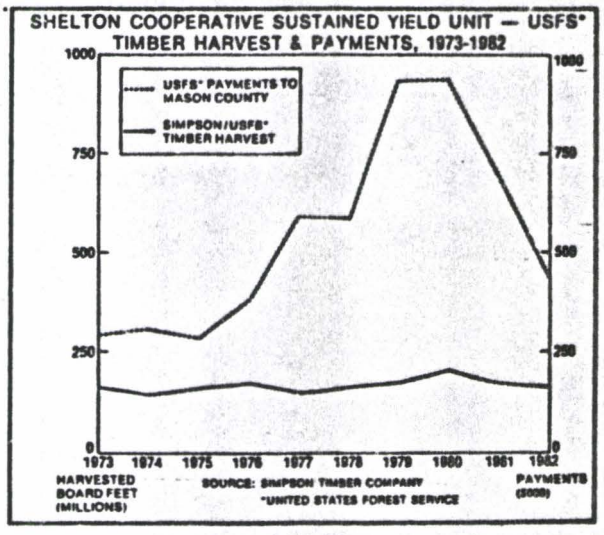

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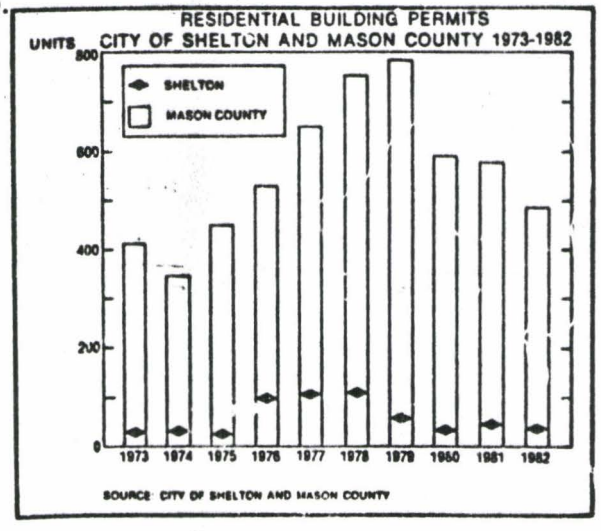

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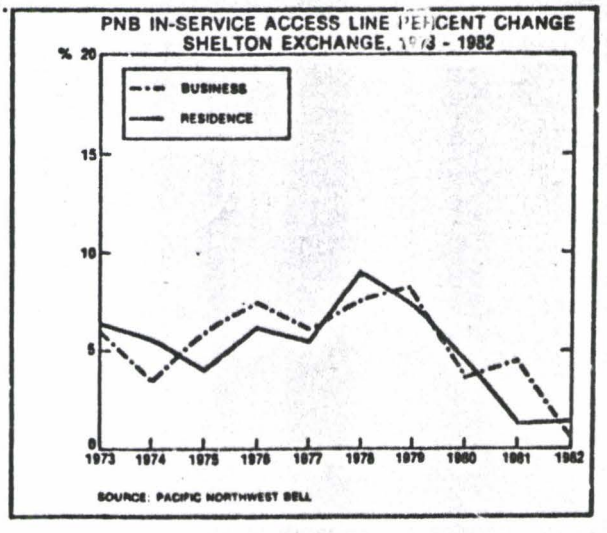


ECONOMIC NOTES

SHELTON, WASHINGTON: A LUMBERING COMMUNITY IN SOUTHERN PUGET SOUND

Chart 1: Shelton -- the only incorporated city in Mason County -- is the county seat for numerous attractive communities engaged in forest products, fishery and recreational industries. Nicknamed 'Christmastown U.S.A.,' Shelton is a homeland for wood-products manufacturing. In contrast, the Olympic National Forest and Park, Hood Canal and lower Puget Sound inlets, as well as Lake Cushman draw tourists, secondary residents and retirees to the entire county. Pacific Northwest Bell, Hood Canal Telephone Company, and Pacific Telcom Inc. serve the 32,700 county residents.

Chart 2: Percent growth in population from 1973 to 1982 for unincorporated Mason County exceeded the rates for Washington, Mason County and Shelton -- the 77.3% increase bringing the rural population to over 75.0% of the county total. Between the last two censuses, rural Mason County grew fastest in the 25 to 39 age group, a 122.1% increase. The retirement age population, 60 years and over, grew to a total of 4,383 people in the same decade, a 78.9% increase. Part-time residents and tourists swell the county's summer population to as much as 100,000.

Chart 3: The composition of county wage and salary employment shifted between 1973 and 1982 toward services and trade, and totaled 6,800 (including local government) in 1982. Growth was oriented toward tourism and health care. Although relative lumber and wood-products employment declined 2.0% over the decade, it remained the largest private source of jobs. Even with implementation of labor-saving technology, that segment increased employment by more than 15.0% over the decade. Seasonal employment in the Christmas tree and floral greens businesses was estimated at a further 3,200 in 1982, attracting migrant as well as part-time local workers.

Chart 4: The U.S. Forest Service (U.S.F.S.) portion of the Shelton Cooperative Sustained Yield Unit (CSYU) -- a nationally unique 100-year timber management agreement with Simpson Timber Company -- was a major contributor to the peak 1980 payment of $936,908 to Mason County from Olympic National Forest Timber receipts. The prior seven years yielded a compound annual growth rate of 17.9% in payments. In keeping with the goal of the CSYU, total unit timber harvest was relatively stable from 1973 through 1982, averaging 168 million board feet per year. Payments from U.S.F.S. fell after 1980 due to the recession and to a shift in cut from U.S.F.S. land to Simpson Timber Company land.

Chart 5: Residential building permits for Mason County exceeded those for Shelton by a factor of nine -- on the average -- from 1973 to 1982, reflecting rapid population growth in rural areas. Residential permits peaked in Shelton in 1978 at 107 units, while the county's high followed a year later at 784 units. Declines in ensuing years were attributable to the recession. Over half the 1982 permits in the county -- which has no zoning or land use planning requirements -- were for mobile homes.

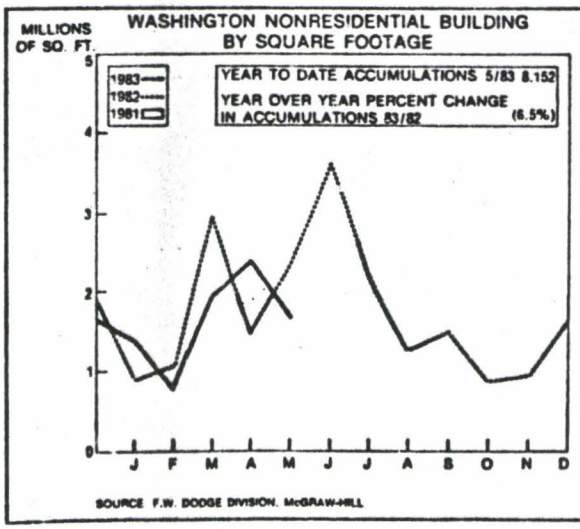
Chart 6: Annual percent changes for in-service access lines for the Shelton exchange show both business and residence fluctuating within a 5.0% range from 1973 to 1980, including impact of the 1974-75 recession. Growth was positive throughout the 1981-82 recession, although total residence and business gains in 1982 were the lowest since 1964.

WASHINGTON EMPLOYMENT HIGHLIGHTS
(Seasonally Adjusted 000's)

		Change From	
	5-83	4-83	5-82
Total Wage and Salary	1570.4	(4.9)	+3.2
Total Manufacturing	273.0	(4.0)	(13.5)
Lumber and Wood	42.1	(0.9)	+3.6
Metals	21.6	0.0	(2.5)
Machinery	25.2	(0.7)	(2.7)
Aerospace	61.2	(1.1)	(10.7)
Other Trans. Equip.	16.1	(0.3)	(2.0)
Food Processing	30.7	(1.5)	(0.9)
Paper	15.6	(0.3)	(0.2)
Other Manufacturing	60.5	+0.8	+1.9
Total Nonmanufacturing	1297.4	(0.9)	+16.7
Mining	2.8	(0.2)	(0.4)
Construction	76.5	(0.7)	+1.0
Transp., Comm., Util.	89.2	(0.3)	(0.5)
Trade	390.4	+0.1	+5.2
Fin., Ins., Real Est.	91.3	(0.2)	+0.5
Services	329.5	+0.3	+9.2
Government	317.7	+0.1	+1.7

UNEMPLOYMENT RATES
(Percent of Civilian Labor — Seasonally Adjusted)

	5-83	4-83	5-82
Washington	11.8%	11.3%	12.6%
U.S.	10.1%	10.2%	9.3%



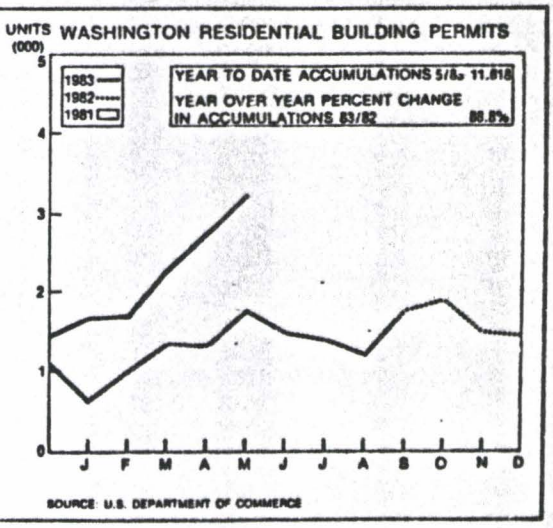


Exhibit 1

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LEVELS OF SITE MODIFICATION		
Recreation opportunity spectrum class	Development scale	
Primitive	1	Minimum site modification. Rustic or rudimentary improvements designed for protection of the site rather than comfort of the users. Use of synthetic materials excluded. Minimum controls are subtle. No obvious regimentation. Spacing informal and extended to minimize contacts between users. Motorized access not provided or permitted.
Semi-primitive (Motorized and nonmotorized)	2	Little site modification. Rustic or rudimentary improvements designed primarily for protection of the site rather than the comfort of the users. Use of synthetic materials avoided. Minimum controls are subtle. Little obvious regimentation. Spacing informal and extended to minimize contacts between users. Motorized access provided or permitted. Primary access over primitive roads. Interpretive serivces informal, almost subliminal.
Roaded natural	3	Site modification moderate. Facilities about equal for protection of site and comfort of users. Contemporary/rustic design of improvements is usually based on use of native materials. Inconspicuous vehicular traffic controls usually provided. Roads may be hard surfaced and trails formalized. Development density about 3 family units per acre. Primary access may be over high standard roads. Interpretive services informal, but generally direct.
Rural	4	Site heavily modified. Some facilities designed strictly for comfort and convenience of users. Luxury facilities not provided. Facility design may incorporate synthetic materials. Extensive use of artificial surfacing of roads and trails. Vehicular traffic control usually obvious. Primary access usually over paved roads. Development density 3-5 family units per acre. Plant materials usually native. Interpretive services often formal or structured.
Urban	5	High degree of site modification. Facilities mostly designed for comfort and convenience of users and usually include flush toilets; may include showers, bathhouses, laundry facilities, and electrical hookups. Synthetic materials commonly used. Formal walks or surfaced trails. Regimentation of users is obvious. Access usually by high-speed highways. Development density 5 or more family units per acre. Plant materials may be foreign to the environment. Formal interpretive services usually available. Designs formalized and architecture may be contemporary. Mowed lawns and clipped shrubs not unusual.

*-

APPENDIX H

Increment 1 Costs

Drill 3 wells w/screens (3 wells 150' @ $60/ft)	$27,000
Construct 3 hand pumps w/bases (3 @ $1,350)	4,050
Water Testing (3 @ $350)	1,050
	$32,100

NOTE: These costs do not include contingency, change orders, or design.

Increment 2 Costs

Facilities Replacement	$ 7,200
a) Tables (18 @ $400)	1,900
b) Firerings (19 @ $100)	
Construct double vault toilets (2 @ $13,000)	26,000
Traffic control barriers and delineation	1,300
Bulletin Boards (2 @ $500)	1,000
Signs - Other	
a) Directional	750
b) Interpretive	250
c) Destination	350
d) Site No. and post	500
	$39,250

NOTE: These costs do not include contingency, change orders, or design.

APPENDIX H

Increment 3 Costs

Construct 5 spurs and units - loop A	$ 7,200
a) Tables (5 @ 400)	2,000
b) Firerings (5 @ $100)	500
Construct 15 spurs and units - loop B	21,600
Construct 2 gravel parking lots - loop B (35 cars 13,000 sq. ft.)	4,400
a) Tables (28 @ $400)	11,200
b) Firerings (28 @ $100)	2,800
c) Group fire circles (2 @ $2000)	4,000
Construct double vault toilets (2 @ $13,000)	26,000
Hand pump wells and testing (2 @ $10,700)	21,400
Waste and water sumps (4 @ $500)	2,000
Traffic control barriers and delineation	1,150
Gates (2 @ $700)	1,400
Bulletin Boards (2 @ $500)	1,000
Signs - Other	
a) Directional	750
b) Interpretive	250
c) Destination	350
d) Site No. and post	400
Organized group entrance sign (1 @ $1500)	1,500
Fee System	2,400
	$112,300

NOTE: These costs do not include contingency, change orders, or design.

APPENDIX H

Increment 4 Costs

Harden one cluster of camp units for disabled	$ 6,800
Host site	
a) Septic tank and drainfield	4,000
b) Sign	100
Tent pads (15 @ $180)	2,700
Waste and water sumps (4 @ $500)	2,000
Day use gravel parking area (4000 sq. ft.)	1,500
Harden access trails for disabled	4,000
Construct 2 miles of trail up Big Creek	12,000
	$33,100

NOTE: These costs do not include contingency, change orders, or design.